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## ORIGINAL LECTURES.

CLINICAL LECTURE

### ON THE ANTIPYRETIC TREATMENT OF TYPHOID FEVER,

BY BATHS, SPONGING THE BODY, AND THE WET SHEET.

*Delivered at Bellevue Hospital,*

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GENTLEMEN: As introductory to the subject of this lecture, I ask to be indulged in giving some personal reminiscences. More than thirty years ago my interest was enlisted in the clinical study of the continued fevers. This was not long after the publication, in this country, of the translation by Bowditch of the great work of Louis, containing researches which established the clinical history of the typhoid fever in France, of that day, and not less of the typhoid fever of to-day in all countries. The observations by Gerhard, Shattuck, and others had recently been published, showing that typhus fever, as existing in Ireland, and as imported into this country, was a species of fever distinct from the typhoid fever studied by Louis. It was a mooted question at that time whether typhus and typhoid fever were varieties of one species of fever, or essentially different diseases. This question elicited much discussion at the annual meeting of the New York State Medical Society in 1850, and a committee was appointed, of which I was made chairman, to collect facts relating to the question. I was in this way led to study analytically, following the numerical method of Louis, all the cases of continued fever which, up to that time, I had recorded. The number of cases amounted to fifty-two. The results of the analytical study of those cases were embodied in a report. In 1851 I had collected the recorded histories of forty-eight additional cases of typhus and typhoid fever. I subjected these cases to an analytical study, and embodied the results in a second report. Again, in 1852, I studied in the same manner sixty-four cases of typhoid and typhus fever, which I had recorded since 1851, and the results were embodied in a third report. The whole number of cases analyzed thus were one hundred and sixty-four.

One advantage in studying these three collections of cases separately was, the results obtained from the collections severally could be brought into comparison with each other. The three reports were published in a volume in 1852. I may be permitted to refer to this volume for several reasons. It was my first-born of a bibliographical brood, which has since become somewhat numerous. It is not in a condition now to speak much for itself, as it has long been out of print. The edition was small, and, moreover, the volume was printed for the author, having only a nominal publisher, so that it never had a fair chance for much circulation. But it represents the employment of most of my leisure hours for a period of three years. Aside from the personal benefit derived from the studies, compensation for the labor was found in a remarkable correspondence with the results of Louis' researches as regards the clinical history of typhoid fever—a correspondence corroborating the accuracy of his researches, and going to show that the disease retains its historical characteristics in different countries and at different periods. I

began the analytical studies with belief in the identity of typhus and typhoid fevers, but the studies converted me to the opposite opinion, and this opinion is now held by most, if not all, medical writers. In collecting my histories, I stumbled upon a number of cases of relapsing fever, and these were the only cases of this disease which, up to that time, had been reported in this country, except some recorded by Clymer, in 1846.

My subject to-day is the treatment of cases of typhoid fever by the antipyretic employment of cold water. I may mention the fact that, in my second report, I studied the effects of the wet-pack in five cases. By the "wet-pack" I mean enveloping the body in a wet sheet, and over it dry blankets, after the method of the so-called hydropathists of that time. This measure cannot act by the direct abstraction of heat; but it is entitled to be called an "antipyretic measure," for it is often followed by a considerable reduction of temperature. As such, it deserves more consideration than it appears to have received. Within late years I have known it to prove signally useful in many cases of febrile disease. When my reports were written, the thermometer had not come into clinical use, the intensity of fever being estimated by the subjective symptoms together with the sensation of heat communicated to the hand applied to the skin. The effect of the wet-pack, in my cases, was excellent; but I was deterred from continuing my observations by the occurrence of apoplectic coma in a case in which this measure had been employed with very marked immediate benefit. There was no ground for supposing that the treatment had anything to do with the occurrence of the coma; but, as the measure was then a novelty in medical practice, I considered that I would be held responsible for any accidents that might subsequently take place.

The following quotation from my second report expresses my ideas of the value of external refrigerating treatment at that time: "The direct effect of an increased disengagement of caloric, it is not improbable, may contribute to some of the evils of the febrile state. The most effective refrigerating measures, which possess much potency, are external applications, and these are *cold water* and *cool air*. Ablutions with cold water are usually grateful to the sensations of patients affected with fever, and abate, frequently in a striking manner, the increased heat and dryness. The simplicity of the measure causes it to be lightly esteemed by attendants, and sometimes, perhaps, by physicians. It is really an important part of the treatment of a large proportion of fever cases. The face, body, and extremities may be sponged, in succession, several times a day, or as often as the heat and dryness of the surface return. A faithful, judicious nurse may occupy a considerable portion of the time with these ablutions to the advantage of the patient. Should cold water occasion uncomfortable sensations (which is rarely the case), tepid or even warm water will secure, by evaporation, part of the refrigerating effect. The evaporation will be more rapid if spirit be added to the water. Cologne, or other perfumed spirits, may be employed for this purpose. Cold water, taken into the stomach, exerts a refrigerating effect on the skin and the system at large. Patients should be allowed to drink freely. The refrigerating effect of cool air is important. This is one of the useful ends of free ventilation. To secure this end, the patient should be lightly covered, and ventilation between the bedclothes attended to." These views, published thirty years ago, foreshadowed those which

at this moment hold the most prominent place in the treatment of fever.

Since the commencement of the session (1881-82), we have treated in this hospital [Bellevue] several cases of typhoid fever. In all the cases, except some in which the temperature of the body did not rise above 103° F., the reliance has been mainly on antipyretic measures, together with those of palliation and support. Antipyretic measures have been for several years mainly relied upon in treating the cases of this disease which have been received in the medical division of the hospital with which I am connected. The number of cases treated antipyretically is not large, being only fifteen.<sup>1</sup> These cases, however, have been observed closely, and the histories recorded with much painstaking on the part of the members of the house-staff who have had the cases in charge. During the whole, or the greater part, of the course of the disease, the temperature and the pulse have been noted every hour or two of the twenty-four hours in most of the cases. I propose, in this lecture, to give the results of the analytical study of these cases. I shall not challenge your patience by reading the histories. To do this would be intolerably tedious. From the histories I shall select the facts bearing on the following points of inquiry: (1.) The different modes of employing, externally, cold water, and the general rules observed in their employment. (2.) The antipyretic effect obtained, the time required, the duration of the effect, and the repetitions of the different modes of employing cold water for the reduction of temperature. (3.) The mortality and the duration of the disease in these cases. (4.) The employment of quina as an antipyretic remedy in these cases. (5.) The employment of alcoholics. (6.) The dietetic treatment and the medicinal remedies employed.

1. *The different modes of employing externally cold water, and the general rules observed in their employment.*—In a few cases the cold bath was employed, that is, the patients were placed in a bathing-tub, in water of a temperature of 80° F., and the temperature reduced by the introduction of ice to about 65° F. This mode may be called, for the sake of distinction, the ice bath. It was soon discontinued on account of the inconveniences attending it, and it was not resumed because the employment of other modes appeared to secure all its advantages. The other modes were the sponge bath and the wet sheet with sprinkling. The sponge bath was often found to be notably effective. To obtain the utmost efficiency of this mode, the whole body exposed to the air is sponged with cold water, and the sponging continued steadily for a considerable time. As will be seen presently, the temperature of the body may, in many instances, be satisfactorily reduced by this mode. The wet sheet, however, is more effective. In carrying out efficiently the latter, the body is wrapped in a wet sheet, and sprinkling with water from a watering-pot, repeated at intervals of a few moments. The patient need not be removed from the bed if it be protected by a sufficiently large India-rubber cloth, but the cot known as "Kibbe's cot," is to be preferred. An ordinary cot-bedstead answers, however, very well. This mode of refrigeration is vastly more convenient than the bath-tub; it can be better regulated as regards the degree of cold, the duration of its employment, etc.; it is less likely to prove hurtful, and it may be made equally efficient. In most of the cases the sponge bath and the wet sheet were employed at different times during the progress of the disease.

The general rule with regard to the employment of these modes was to resort to one of them whenever the axillary temperature exceeded 103° F., and to continue

<sup>1</sup> It was subsequently ascertained that two additional cases had been overlooked.

it until the temperature was reduced to at least 102°. The temperature during the continuance of the employment of cold is, of course, to be taken in either the mouth or the rectum. The symptoms, aside from the temperature, were noted, and if at any time the pulse became feeble, the respiration disturbed, or the lips livid, the measure was at once discontinued. Alcoholics were often given during the continuance of the sponging or of the wet sheet with sprinkling. It will be seen that the wet sheet, in many instances, was continued for many consecutive hours.

2. *The antipyretic effect obtained, the time required, the duration of the effect, and the repetitions of the different modes of employing cold water for the reduction of temperature.*—In order to present as succinctly as possible the facts pertaining to these points of inquiry, which are contained in the histories of the cases severally, I have arranged them in a tabular form, and they will appear in a paper which I am preparing for publication in *The Medical News*.

I have found, on comparing these tables in respect of the number of repetitions of the employment of cold during the course of the disease, that they present notable differences. The number of ice baths given in all the cases was 5, of sponge baths 129, and of the applications of the wet sheet 64; the total number being 207; the number of repetitions of the sponge bath in one case not having been fully noted. Excluding the 4 fatal cases, the lowest number in any case was 3, the sponge bath having been employed once and the wet sheet twice in this case. In the case offering the next lowest number, 4 sponge baths were given; the highest number was 51, the ice bath having been employed 5 times and the sponge bath 46 times in this case. The next highest number was 18, this number of sponge baths having been employed. Now, the question arises, did the employment of cold in any of the cases have an agency in preventing permanently a rise of temperature, which would have occurred had cold not been employed? I think we may answer this question affirmatively; but much allowance is to be made for the differences to be observed in different cases of typhoid fever in the degree of fever-heat, irrespective of any treatment. Cases are not infrequent in which the temperature never rises above 103°. If, however, the temperature for a short time rise to 104° or 105°, and, after the employment of cold three or four times only, there is no further rise to 103°, it seems fair to attribute a certain amount of agency to the antipyretic treatment in preventing a subsequent degree of fever sufficient to call for a repetition of the treatment.

Notable differences in respect of the length of time required to produce an antipyretic effect are to be observed. The effect was produced by the ice bath in 30 minutes, by the wet sheet in 25 minutes, and by the sponge bath in 20 minutes. These were the shortest periods required; the longest were 20, 11, and 10 hours. Between these extremes, the length of time in the different cases varied much. This was true not alone in different cases, but at different times in the same case. It is evident that there are no known laws regulating the length of time required to produce an antipyretic effect. No judgment can be formed beforehand as regards this point; it can only be determined by experimental observation, and the result of the antipyretic treatment on one day is not to be relied upon in judging of the probable effect on other days during the course of the disease.

The statements just made respecting the length of time required to produce an antipyretic effect by the employment of cold, apply still more strongly to the production of this effect. Looking over the figures in the column devoted to this heading, it is found that variations were great. For example, in one case the

consecutive durations are 10 days, 1 hour, 48 hours, and 24 hours. In another case consecutive durations are  $2\frac{1}{2}$ , 13, 3, 20, and 5 hours. In another case, after consecutive durations of 6, 15, and 8 hours, the temperature before the last of these periods being  $104^{\circ}$ , there was no future rise to  $103^{\circ}$ . There is no approach to such a regularity in the successive periods during which the antipyretic effect continues as to point to any appreciable law. After the reduction of temperature has been effected, the previous experience, even in the same case, furnishes little ground for predicting the length of time during which the temperature will remain reduced. Nor is it practicable to judge beforehand, from either the duration of the antipyretic effect or its degree, of the amount of the rise of temperature which will take place. Nor, again, can any inference be drawn from the temperature which exists when cold is employed, whether or not hyperpyrexia will again occur.

In several instances a decline of temperature takes place after the discontinuance of the sponge bath or the wet sheet. The time during which the decline took place varied from 15 minutes to 15 hours. This fact was noted three times in one case, twice in two cases, and four times in one case. In one case the temperature was increased while the patient was in the wet sheet, reduction afterward taking place. So far as an inference is to be drawn from this collection of cases, it is not the rule, but the exception to the rule, for the temperature to decline after the discontinuance of either the sponge bath or the wet sheet.

It is not to be denied that the facts in these cases are not sufficient to test the relative value of the wet sheet and the sponge bath as contrasted with the ice bath. The latter was employed only five times and in only two cases. In each instance the temperature was promptly reduced. But there were instances in which the wet sheet and the sponge bath proved equally effective. The facts contained in the tables show that by means of the sponge bath a satisfactory antipyretic effect may be often obtained. This being the simplest mode and most easily employed, it may be first tried, and, if it fail, the wet sheet substituted. These two modes, singly or successively employed, will, as I believe, render unnecessary the use of the bath-tub. The wet sheet may be made more or less efficient, according to circumstances, by sprinkling at longer or shorter intervals and by using water of different temperatures.

Finally, I would call attention to the fact that in no instance could any immediate harm be attributed to either of the three modes of the employment of cold. In no instance were there symptoms following their employment so closely as to indicate that the patient had suffered injury therefrom. As a rule, the reduction of temperature was accompanied by improvement in other symptoms. Patients sometimes complained of discomfort, but this probably arose from the reluctance to be disturbed rather than from any unpleasant effects attributable to the cold; oftener they expressed a sense of comfort during its employment.

The number of cases in this collection is not sufficient for testing the influence of the antipyretic measures of treatment on the fatality from typhoid fever. In this regard, however, they may be considered as having some value. Of the fifteen cases, death took place in four. Two cases of recovery, in which the same measures of treatment were employed, were overlooked prior to the completion of the analytical study of the fifteen cases. Adding the two additional cases, the fatality was four in seventeen cases. This fatality is not far from the average rate in collections of cases otherwise treated. So far as any deduction is warrantable, it may be said that the antipyretic measures neither increased nor diminished the fatality.

The duration of the disease in the cases ending in recovery was determinable with precision in nine cases. The shortest duration was nine and the longest twenty-seven days. The mean duration was seventeen and a half days. The latter is one day and a half longer than the mean duration in forty-two cases analyzed by me thirty years ago. The commencement of the disease in the cases now and in those formerly analyzed was dated from the time of taking to the bed. In the cases now analyzed the fever was considered as having ended when the temperature had fallen to within the normal range, that is, from  $98^{\circ}$  to  $99^{\circ}$ .

It cannot be said that the mean duration in the cases now analyzed is evidence that the disease was shortened in its course by the antipyretic measures of treatment.

In the four fatal cases the shortest duration was fourteen and the longest thirty-four days. The mean duration was twenty-one and a quarter days. Post-mortem examinations were made in three of the four cases. In none of the three cases were grave complications found after death. Death took place in all by asthenia. In no case was there any ground for the belief that the antipyretic measures of treatment had any agency in the fatal termination.

3. *The use of Quinia as an Antipyretic Remedy.*—The sulphate of quinia was given in several instances, as an antipyretic remedy, in conjunction with the employment of cold. The instances are noted in the tables. How much effect may have been produced by the quinia in these instances cannot be determined with accuracy. Inasmuch, however, as the reduction of heat effected by the two was not greater or more rapid than often by cold alone, it is fair to conclude that the agency of the quinia was not great. In a few instances quinia was given for an antipyretic effect without being conjoined with cold. In one of these instances the temperature fell in eight hours from  $103\frac{1}{4}^{\circ}$  to  $102^{\circ}$  after 30 grains of the sulphate of quinia. In another instance 20 grains were given, and two hours afterward 25 grains. In two hours after the last dose the temperature had fallen from  $105^{\circ}$  to  $103\frac{1}{4}^{\circ}$ . In another instance 15 grains of the sulphate of quinia were given, the temperature being  $104^{\circ}$ . In five hours the temperature fell to  $103\frac{1}{4}^{\circ}$ . Ten grains more were given, and in two hours the temperature was  $102^{\circ}$ . Ten grains more were given, and in two hours the temperature was  $102\frac{1}{4}^{\circ}$ . A fourth dose of 10 grains was then given, and in four hours the temperature was  $100\frac{1}{2}^{\circ}$ . Ten grains three times were given on the following day, the temperature ranging from  $100\frac{1}{4}^{\circ}$  to  $99^{\circ}$ . These doses were continued during the next day, and the temperature rose to  $102^{\circ}$ . The patient was much cinchonised, and the remedy was discontinued. In another instance 20 grains of the sulphate of quinia were given, the temperature being  $102\frac{1}{4}^{\circ}$ . In three hours the temperature had risen to  $104^{\circ}$ , and the wet sheet was then employed.

4. *The use of Alcoholics.*—In the treatment of these cases alcoholics were given to meet indications relating to the circulation. In some of the cases no alcoholics were given. The quantity given was regulated by the frequency and fullness of the pulse, and diminished intensity of the first sound of the heart as heard over the apex. Whiskey was the form generally used.

5. *The Dietetic Treatment.*—The chief article of diet during the course of the disease was milk. From one quart to two quarts were given daily, lime water being added.

6. *The Medicinal Treatment, exclusive of Quinia.*—In some of the cases no drugs whatever were given. Those which were given, exclusive of quinia, had reference to the palliation of certain symptoms. Digitalis was given in some instances for its tonic effect upon the heart, and ammonia as a cardiac stimulant, Opium



in small doses was sometimes given for diarrhoea. The medication was chiefly limited to these remedies.

From the study of these cases it may be concluded:

1. That by the employment of cold water externally in cases of typhoid fever, the temperature of the body may, after a variable time of the continuance of the employment, be reduced to 102° or lower.

2. After a period varying very much in different cases, and, also, at different times in the same case, the temperature, as a rule, again rises as high as, or higher than, before the reduction.

3. Repeating the employment of cold as often as the axillary temperature exceeds 103°, the number of repetitions required in different cases is extremely variable.

4. The sponge bath and the wet sheet with sprinkling may be employed to the exclusion of the bath-tub in the antipyretic treatment in cases of typhoid fever as well as of other febrile diseases.

5. These modes of employing cold water may be continued sufficiently long for the reduction of temperature to 102° or lower, and repeated as often as may be required, without risk of any immediate injury, and the study of these cases furnishes no ground for supposing that a liability to complications or accidents is thereby increased.

6. Reduction of temperature by these modes as often as it rises, in the axilla, above 103°, improves the condition of the patient. The cases now studied do not afford proof either that the fatality of typhoid fever, or that its duration is thereby diminished. The study of these cases, however, renders it possible that this proof would be afforded by a larger collection of cases.

During the period that the cases now studied were treated, seven hospital cases were recorded in which antipyretic treatment was not employed. In most of these cases the temperature did not rise above 103°, and it was for this reason that the treatment was not employed. Of these seven cases three were fatal, but I need not say that it would be unfair to draw any deduction from the contrast as regards the proportionate number of fatal cases. It is well known that, in general, resistance, toleration, and recuperation are not as well exemplified within as outside of hospitals. Moreover, in cases of typhoid fever, patients are not admitted into hospital until some days after the commencement of the disease. The clinical test of therapeutical measures, as far as fatality is concerned, is therefore best afforded by the study of cases in private practice.

7. The results of the analysis of these cases, although not sustaining the statements of Liebermeister and others respecting the controlling influence of the employment of cold externally in cases of typhoid fever, yet not only show this method of antipyretic treatment to be safe, but afford encouragement to employ it with the expectation of diminishing the severity of the disease and its danger to life.

#### ABSTRACT OF A CLINICAL LECTURE ON THE RECOGNITION AND TREATMENT OF THE EARLY STAGES OF POTT'S DISEASE.

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GENTLEMEN: There is, perhaps, no disease in which it is more important to recognize the early and premonitory symptoms than the one with which the little patient before you is affected, and which is variously known as Pott's disease, angular curvature, antero-posterior curvature, and caries of the spine. Each of these titles is in some respects objectionable. The name of Mr. Percival Pott has been associated with the disease because to him we owe the first correct

exposition of its pathology and treatment. It, however, conveys no information as to the character of the ailment, and although the most common, is perhaps the least useful of its designations. Angular curvature and antero-posterior curvature are names derived from certain symptoms which are not invariably present, and which do not usually appear until what might be called the second stage has been reached. They therefore, as has been pointed out by Mr. Howard Marsh, are liable to mislead the practitioner by causing him to regard them as necessarily to be found at all periods of the disease. Neither is caries of the spine, although present in a large majority of cases, an absolutely constant pathological condition in such patients, the characteristic symptoms being sometimes produced by a process of interstitial absorption, which goes on to destruction of the bodies of the vertebrae without the ulceration and suppuration which are essential elements of true caries.

We may say, however, that, call it by what name you will, the disease is one in which, owing to one or the other of these processes, a disintegration of the vertebral bodies takes place, producing, *first*, irritation of the spinal nerves as they pass out through the intervertebral foramina, and, *second*, a crumbling of the affected bones under the superincumbent weight of the head and body. When this breaking down of the vertebrae occurs in the anterior portion of their bodies, as it commonly does, and when, as is also usually the case, it is attended with the production of pus, we have the more or less marked deformity, and the psoas, iliac, lumbar or dorsal abscesses, which, as a rule, characterize this period of the disease and render it easy of recognition.

I shall confine myself to-day, however, to calling your attention specially to the symptoms belonging to the first stage, which, in nearly every instance, are due to nerve irritation, and which, taken together, should almost unfailingly lead to the detection of the true nature of the malady, at a time when proper treatment will often result in complete cure without disfigurement, but which in practice I find are usually not recognized until this all-important period has passed. Any one of these symptoms may be the first to attract the attention of the child's family; but, as a rule, you will be consulted in reference to a supposed alteration in the little one's disposition, a tendency to avoid all active amusements, a slight dullness or peevishness, or general malaise, which only becomes noticeable or alarming on account of its persistence. If you will at this time carefully observe the movements and posture of the child, you will see that its motions are restrained, that it carries itself with unnatural stiffness, that its gait is possibly a little shuffling, the feet not being lifted from the ground, and that when standing or sitting it leans forward and rests its hands upon the knees or anterior portions of the thighs. You should now at once reflect that these symptoms are all explicable on the theory that some change is going on in the spinal column, probably in the vertebral bodies, but, possibly, in the intervertebral substance, which has set up an irritation in the spinal nerves, and has rendered them unduly sensitive; that, on account of this condition, play has become distasteful, as requiring muscular movement which produces at least a sense of discomfort; that the slight jarring or concussion of ordinary walking gives rise to pain; and that to remove pressure from the inflamed structures, the child, through the medium of its arms, instinctively transfers the weight of its head and shoulders to its lower extremities.

You then proceed to look for further symptoms of nerve irritation, and will, probably, by careful investigation, elicit some or all of the following:

Hurried or grunting respiration on slight exercise,



due to involvement of the nerves supplying the external respiratory muscles—serratus magnus, quadratus lumborum, intercostals, etc.

Pain in the shoulders, the walls of the thorax, or in the lumbar region, the seat varying with the portion of the spine affected by the disease.

Pain at the pit of the stomach, resembling an ordinary "belly-ache," but due to irritation of the spinal nerves, which, in common with the sympathetic, supply the intestines. This pain, like that of colic, is temporarily relieved by the prone position, pressure on the bowels controlling to a certain extent the irregular and spasmodic action of their muscular coats, which is associated with both these conditions, or, in other words, fulfilling the same function as the roller bandage in fractures.

Fidgety movements of the feet from implication of the crural or sciatic nerves, or their trunks of origin.

Pain in the hip, knee or thigh, due to the same cause.

Pain on jumping, coughing, sneezing or sudden turning, or on any movement which takes place while the dorsal muscles are relaxed, or, so to speak, "off guard."

Pain elicited by pressure upon the head or shoulders, and strictly localized, involving a small area directly over a definite part of the spine. Conversely, it will be found that the pain, if constant, will be relieved by placing the child in a prone position across the knees, and then separating them gently, so as to make traction in opposite directions upon the two extremities of his vertebral column.

Hyperæsthesia, also limited to a definite region, and detected by passing a hot sponge along the vertebral gutters. Evidences of pain are often manifested when the diseased part is reached.

Peculiar, and very characteristic, method of reaching objects lying upon the ground. The patient will lower himself not, as would be natural, by any movement of the body, which will be held rigidly perpendicular, but by flexing the knees and thighs until the hand touches the desired article. In rising, the same care will be observed to avoid flexion or rotation of the spine.

I do not desire to be understood as teaching that all of these symptoms are without exception present in the early stages of Pott's disease, but you may rest assured that in nearly every case you will find several of them, and that you will be able by their means to make your diagnosis and to apply your treatment.

The latter, both in principle and practice, is extremely simple. When you recall the condition upon which the symptoms depend, and remember that its progress is hastened and its severity increased by pressure and by the weight of the head and upper portion of the trunk, it at once becomes evident that surgical interference must be directed towards a removal of these sources of aggravation of the original trouble.

The recumbent posture, strictly adhered to and continued for a period long enough to permit of the gradual subsidence of the inflammation, the absorption of its purulent or cheesy products, and the development of new fibrous or bony material to consolidate and strengthen the affected vertebrae, would meet all the therapeutic indications. In young children this may be thoroughly carried out, the enforced rest only terminating with the occurrence of ankylosis, particularly if the disease be situated in the cervical or cervico-dorsal region. In the great majority of cases, however, this is hardly feasible; the natural restlessness of the child, and the absence of careful and continuous attention on the part of the parents, who see no marked external evidence of disease, usually sufficing to thwart this plan of treatment or to preclude its persistent employment. The same indications should then be met by the application of a mechanical apparatus, to be worn uninterruptedly, and

which will permanently remove all weight from the inflamed bones.

Of all those which have been devised for this purpose, two only are worthy of mention, viz., the plaster-of-Paris jacket applied in the now well-known manner, or a leather jacket, accurately moulded and fitted over a plaster cast taken from the patient. The latter dressing, although more expensive at first, is lighter and more durable than the plaster, and answers the purpose of support equally well. With either of them, where the disease is situated above the lumbar region, the head-suspension apparatus becomes a necessary addition to the jacket. Both of these appliances act by shifting the weight of the head and shoulders from the spine to the irregular surface of the thorax, abdomen and loins and to the margin of the pelvis. When ankylosis has occurred, which may be known by a gradual disappearance of the symptoms, the jacket may be dispensed with, removing it at first for a few moments each day, and gradually lengthening the interval, until it is left off altogether. In conclusion, I would caution you against the common and harmful assumption that in every case some mechanical support can be employed, by means of which the patient can with safety be allowed to go about. In certain cases, fortunately not very numerous, where all these dressings give rise to pain, or in which the deformity appears and increases in spite of them, they should be withdrawn, the only possible hope of arrest or cure of the disease depending then upon strict and protracted recumbency. In conjunction with any of these plans of treatment, fresh air, sunlight, nutritious food, cod-liver oil, iodide of iron, and the phosphates constitute useful hygienic and therapeutic adjuvants.

## ORIGINAL ARTICLES.

ON THE

### ERGOT TREATMENT OF DIABETES INSIPIDUS.

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TO PENNSYLVANIA HOSPITAL.

IN April, 1875, I communicated to the College of Physicians of Philadelphia<sup>1</sup> the details of a case of diabetes insipidus treated by ergot. So far as I know, this case was the first in which this agent had been systematically and successfully used. As attention was called to the matter, ergot has since been tried by a number of observers. My own experience with it, too, has been now comparatively large, and I think that altogether, from the lapse of time and the accumulating records, we are in a position to endeavor to determine its true value. I shall first narrate briefly some of my own cases. But of the first case, as it has been fully published in the Transactions of the College, I will only here say that I have seen the man of late years, and that he continues in excellent health. This is a record of case No. II.

CASE II.—A young man, twenty-one years of age, a patient in the Pennsylvania Hospital in 1877, of good family history, except that his mother died of consumption. He passed on an average ten pints of urine daily, of specific gravity 1005, of acid reaction, and without a trace of albumen or sugar. The disorder came on gradually, and, when he first noticed it, he was in excellent health. There was actually no cause to which it could be assigned, unless, perhaps, to work and worry,

<sup>1</sup> Transactions of College. Vol. I., 3d Series.

or to a doubtful history of a strain in lifting a heavy weight. He never had had venereal disease; he had received no injury to the head or spine; he had not had a sunstroke; there was no malarial history. His digestion was fairly good; the bowels were rather constipated; no disease of the heart, lungs, or any of the viscera could be discerned; the temperature was normal, or below the normal, 98°. He had lost flesh steadily and rapidly, and was strikingly emaciated when I saw him in the hospital, about six months after the outbreak of his malady. He complained of nothing but of debility, of a feeling of weakness in the small of the back, of the incessant urination, and of an irritability at the neck of the bladder, with a sense of burning, for which no adequate local cause could be discovered. He declared that he was not very thirsty, and that he passed more water than he drank. Unless he deceived us, such was indeed the case. We measured the fluids of every kind he took; they never exceeded six pints, and we cut them down to four pints; whereas, he passed not less than eight, and oftener ten pints in the twenty-four hours. He was very restless. There were occasionally chilly sensations and flushes of heat, and he was sometimes bathed in perspiration, but there were no night-sweats.

After observing his case, while he was taking no medicine and under varied diets, and finding it uninfluenced, he was placed on drachm doses of fluid extract of ergot three times, subsequently four times, daily, and for four days, six times daily. In a few days after the beginning of this treatment, he was no longer obliged to get up at night, and the pains had all left him; the flow had decidedly decreased. On the eleventh day he was noted to have greatly improved, and to have passed but five pints in the twenty-four hours. On the twenty-second day of treatment, he was voiding a little less than four pints of urine, and his whole condition was better. The ergot was reduced to a drachm three times daily. It had, throughout, not given him any inconvenience, unless a rather greater tendency to constipation was caused by it. This was met by the occasional administration of castor-oil. On the twenty-fifth day the ergot was still further reduced; he only got thirty minims thrice daily, and was discharging three and a half pints of urine, of almost normal specific gravity. On the thirtieth day the remedy was stopped and a little peppermint water given. He was passing but three pints of urine, while drinking five pints of fluids. His general condition was very good; but he was placed on cod-liver oil, under which he fattened and grew strong. An operation of phimosis was performed on him, which seemed to relieve the irritation of the bladder. He remained under observation in the hospital about three weeks after the ergot treatment was suspended; towards the last, taking nothing. The urine voided was about three pints daily, some days even a little less. He was discharged cured, in January, 1878, in fine health. As he has not reappeared, I think he has remained so.

**CASE III.**—A miner, admitted into the Pennsylvania Hospital September 29, 1876. There was an excellent family history, and the man himself had been in good health until the last few years; he never had had rheumatism or syphilis. In 1874, without assignable cause, he began to suffer from severe pain on the right side of the face and head, and the headache gradually became more continuous and localized in the right temple. There was never vertigo or vomiting, but loss of memory and irritability of temper; and the vision was much impaired, that of the right eye being lost. An expert, after his admission into the hospital, found blue atrophy of both optic nerves, complete on the right side. But besides the headache, the most annoying symptom was the discharge of about eighteen pints of

urine daily, with considerable attending thirst, and a harsh, dry skin. The urine was clear, faintly acid, of specific gravity 1003, containing neither albumen nor sugar. There was no fever temperature. He was ordered one drachm of fluid extract of ergot three times daily; the urine, the next day, fell to fifteen pints. On the sixth day, the ergot was increased to two-drachm doses. In the course of a fortnight the urine had been reduced to four and a half pints, and the man had otherwise improved; he had less headache.

October 22, he complained, however, of severe frontal headache and dimness of vision; there was no increase of the urine. The ergot treatment was suspended, and ten grains of bromide of potassium given every second hour, with the subsequent addition of a few drops of deodorized tincture of opium. He was only passing two pints of urine. On the 27th, the urine had increased to five pints; he had still a good deal of headache, and restless nights. On November 1, he was observed to have a fever temperature, to be very excited and alarmed and delirious. The urine could not be measured, as it was passed involuntarily, but it was small in quantity. It was evident that he was suffering from an acute attack of meningitis superadded to previous disease. But as the case was made the subject of a clinical lecture, an abstract of which was published in the *Medical and Surgical Reporter* of January 6, 1877, it is unnecessary to go here into further details. It is only incumbent, for our present purposes, to state that the man was freely purged, and placed on iodide of potassium; that the acute symptoms lasted about two weeks, and that neither then, nor until his discharge, on December 6, did the urine become again of low specific gravity, or exceed four pints in the twenty-four hours, although the iodide of potassium was continued. Not only the acute symptoms, but the previous steady headache, greatly improved, and the man left the hospital apparently in good health, to return to his work.

**CASE IV.**—Joseph G., forty-two years of age, formerly a soldier in the U. S. Army, was admitted October 19, 1877, into the Pennsylvania Hospital. He had been in good health until three weeks before admission, when he had chilly sensations coming on every morning for a week, and lasting three hours. After continuing for a week, they terminated abruptly without medication; it is most unlikely that they were malarial. The temperature was 98.5° ranging to 99°; there was some cedema of the legs, but it was of short duration. He passed large quantities of urine, clear, acid, of specific gravity at first 1015, then less, and not containing either sugar or albumen; in amount the urine varied for the most part between five and a half and seven pints daily. A consolidation was found to exist at the right apex, associated with a moderate amount of cough. He took fluid extract of ergot, a drachm three times daily, for about a week, continuing an iron preparation on which he had been placed. But it produced no result, and as the temperature rose, reaching at one time 100.5°, and the signs of pulmonary consolidation at the apex became more manifest, his treatment was entirely altered. The temperature soon subsided again, and was for ten days lower than normal, ranging between 98° and 97.5°. At the end of this period, the urine was about five and a half pints daily; the chest symptoms were quiescent. He was placed upon full diet and strychnia; at first one-thirtieth of a grain three times daily, then one-fifteenth. In a week this treatment had no effect; in sixteen days he was passing but four pints daily, and was very much stronger and better. In about two weeks afterwards he was discharged at his own request, greatly improved; the signs of right-sided apex consolidation remained; the cough was very slight.

**CASE V.**—G. S. applied at the Jefferson Medical Col-

lege Clinic on the 23d of May, 1878, with excessive flow of urine. He was a dyspeptic, troubled with flatulency and occasional vertigo, and a feeling of soreness in the limbs and across the abdomen and the back. There was no cause to which the inordinate flow of urine could be directly traced; he stated that the weak back of which he complained, and his other symptoms, began with chilly sensations about a year before; but the flow of urine has been coming on for two years. He was found to have tubercular deposits, not extensive, at the apices of both lungs. It was impossible to get him to measure accurately the amount of urine passed in twenty-four hours; he kept a record of the night urine, and it was frequently eight pints. It was of low specific gravity, and contained neither sugar nor albumen.

The man was placed on fluid extract of ergot, half a drachm three times daily, which was subsequently increased, and he was directed to take nourishing food. In two weeks' time he had greatly improved, the soreness was entirely gone, and the quantity of urine largely decreased; how much he did not ascertain for us by measurement, but he was not obliged to rise at night nearly so often. On account of the dyspeptic symptoms, a mixture of five minims of tincture of nuxvomica, ten of dilute phosphoric acid in compound infusion of gentian, was now administered three times daily, and the ergot no longer steadily used. He continued to do better and better until July 15; the urinary flow being no longer a prominent feature of his case, when he discontinued his visits. The lung affection had not increased.

CASE VI.—W. H. S., thirty years of age, applied at the Medical Clinic of the Jefferson Medical College, in October, 1879, on account of great weakness and excessive flow of urine. There was an old history of syphilis, a more recent one of severe malaria, contracted in the spring of 1878 in Texas, and which had broken out again in April of 1879. He was very pale and weak, had lost much flesh, and complained greatly of pains throughout the body, and especially through the limbs. But his chief disturbance was from the quantity of water he passed, some days not less than fourteen pints, six pints of which were voided at night. We made him measure the urine for three consecutive days; the record was eleven pints, ten pints, ten pints. This was on a varied diet; he had tried a restricted diet, such as a diabetic patient would employ, and no change was perceptible. The record of the three days alluded to was below his usual average. The urine was very pale, of specific gravity 1006, free from sugar or albumen. He was very thirsty, but thought he passed more fluid than he drank. The extreme flow had existed for a month. He was somewhat dyspeptic, with a tendency to constipation; the spleen was decidedly enlarged, the liver somewhat so, and he complained of tenderness over these organs, especially over the spleen. Just before he had malarial fever his horse fell on him, bruising his left side, since which time he has always had pain and some soreness there. Nothing else abnormal was discovered; the skin appeared to be acting fairly well. He was placed on a full diet and on ergotine, which, however, was soon exchanged for half a drachm of fluid extract of ergot three times daily. He did not improve; indeed, about a week after this treatment was begun, he passed, November 10, sixteen pints; 11th, eighteen pints; and in twelve hours of the 12th, twelve pints. An attempt was made to increase the dose of the fluid extract of ergot, but it did not suit his stomach, and we returned to the use of ergotine, in three-grain doses three times daily; while, for the constipation, an occasional pill at night was administered, consisting chiefly of small quantities of podophyllin and aloes. 13th, the urine was sixteen pints; 14th,

twelve pints. This improvement slowly went on, and with it the man's general condition became better. 20th, lactate of iron was in addition prescribed. The urine on the 26th had been reduced to eight pints in the twenty-four hours, and at about this it remained until December 7, when the record was seven pints. The lactate of iron was now stopped, while the ergotine was continued, and gradually increased to six grains three times daily. A tonic mixture containing  $\frac{1}{10}$ th of a grain and 15 m. of tincture of the chloride of iron was also given three times daily; but from this, on the 21st, the strychnia was omitted. December 16, the record was five pints in the twenty-four hours; 21st, the same. The specific gravity rose with the decreasing quantity; diminution of the spleen was noted, and continued improvement in general health; the soreness and the pains had nearly gone. 31st, he passed four and a half pints; January 5, 1880, he felt himself well enough to go to work, still voiding that amount of urine, or some days a little more.

On the 15th, he reported that he was quite able to do his work, was gaining flesh, but that his appetite was failing, and that the bowels, notwithstanding occasional purgative pills, were costive. He thought the ergotine was disagreeing with him, and it and the iron mixture were stopped; the urine had not increased in quantity, nor returned to a low specific gravity. One-thirtieth of a grain of strychnia, with five minims of dilute muriatic acid in glycerine and water, was given three times daily, and the laxative pill already mentioned at bedtime. February 1, was gaining, the soreness of the limbs was nearly gone, the appetite was good; he passed four pints of urine daily, or rather less. A pill was required every night to ensure a movement the next morning. 14th, he reported continued improvement; for four days the amount of urine passed was not more than when he was in health, and he had discontinued measuring it; the strychnia was only given twice daily, the pill alternate nights. As the same favorable report continued March 1, with the addition of the statement that he felt as well as he ever had, the medicines were gradually abandoned. April 1, he was in as good condition as when last seen; the strychnia had been entirely stopped for a week; the laxative pill was taken every third or fourth day.

On June 14, after hard work, he had a slight relapse. The urine, which had remained normal in quantity, increased to eight pints in twenty-four hours; the tired feeling in the limbs returned. But the relapse was of short duration; it readily yielded to the former strychnia prescription, taken twice daily, and by the 20th he was again well. The strychnia was, however, continued for a month. August 1, 1880, he had not taken the remedy for two weeks; he remained well, and so he has until now.

When we look at these cases, we find five recoveries out of the six, and in two the patients have been since under observation, and it is positively known that the recovery from the disorder is lasting; of the other three, it is most likely that such is the result. In the case in which the treatment did not succeed, ergot was only tried, though in decided doses, for about a week, and, as it produced no effect, and there was a pulmonary complication, it was exchanged for strychnia, under which the patient did better, although not rapidly. The evidence of improvement in all in which improvement follows, is not only seen in the decreased flow of urine and its increased specific gravity, but in the better nutrition, the lessened thirst, the altered state of the skin, and in the subsidence of a symp-



tom to which I shall call particular attention, and which the analysis of these and others of my cases has impressed on my mind,—the pains in the limbs and body, and the feeling of soreness without tenderness: It is not my object to discuss here matters of general pathological and clinical import, but rather to bring forward the results of a special plan of treatment, or I should do more than merely touch upon this point; I should also do more than merely speak, in passing, of the connection with pulmonary disease, which two of the cases exhibited. In one there was a catarrhal pneumonia, in another a tubercular affection; and I have lying before me the notes of two others, the first of which, beginning with catarrhal pneumonia, I had the opportunity of following subsequently, to the autopsy, with pneumonic phthisis. Here the lung affection followed the polyuria. In the case described in this paper (Case V.) it was the same; at times the reverse appears true. There seems to be more than coincidence in the occurrence; and the matter, both with reference to chronic catarrhal pneumonia and phthisis, is well worthy of careful analytical study.

The treatment under discussion is not a difficult one to carry out. Here and there a stomach rebels, and the continuance in sufficient doses becomes impossible. Then, too, we may not be able to keep the ergot up long enough to effect the cure alone, though long enough to have practically broken up the disorder, for the urine does not again decidedly increase. Under such circumstances, as in Case VI., I have found strychnia an admirable remedy to follow the ergot treatment with, either as a permanent or temporary substitute; in other instances, wherever the ergot is continued, cod-liver oil becomes a good adjunct. The dose of ergot must be a decided one—at least one drachm of the fluid extract three times daily; better still, if well borne, twice that quantity. Case VI. took in place of ergot three grains of ergotine, increased to six thrice daily. But, on the whole, I prefer the ergot itself in extract. I have never seen any disagreeable consequences from the doses mentioned; never dilated pupils, markedly slower pulse or breathing, or vertigo. Some headache, and perhaps an aggravation of the existing constipation, are, besides any gastric disorder, the only unpleasant signs of the impression of the medicine. It takes generally about one week for it to show a decided influence.

As to the mode of its action, it is chiefly by the contraction of the capillaries; but where? in the kidneys or in parts of the nervous system, in ganglionic or cerebro-spinal nerve centres? Most likely in the centres. But our knowledge of the exact pathology of diabetes insipidus is too uncertain to speculate much on the manner in which a drug affects it. Then, too, there are classes of cases in which ergot is not likely to do much good; those, for instance, with a distinct cerebral lesion. But here, the character of the lesion will make much difference. Thus, in Case III., where it was probably meningeal to a great extent, the effect was very good. In degenerative diseases of the fourth ventricle, and brain tumors pressing there or else-

where, ergot is not likely to be of benefit. But this is mere surmise; for we know nothing as yet from direct observation, as we do of cases of polyuria dependent on gummata cured by mercurial inunction<sup>1</sup> or by iodide of potassium. In instances of excessive flow of urine associated with renal disease, ergot only acts temporarily or not at all. We have at present under observation at the Pennsylvania Hospital, a man (August S., Men's Medical) who came in passing 225 ounces of highly albuminous urine. He has been voiding a large quantity for three years, with one decided intermission. At first he was dropsical, but this was early in the case, and before the excessive flow, which at one time reached 300 ounces. He is now passing 182 ounces after a two weeks' treatment with ergot, increased gradually to half a drachm of the fluid extract of ergot eight times daily; belladonna did no better.

Ergot has been in the last few years tested by others than myself, and I shall analyze such of the recorded cases as I have met with. Dr. Tyson<sup>2</sup> publishes a failure. The drug was given in sufficient doses, one drachm of the fluid extract three times daily, increased to two drachms. It answered well for a short time, but not permanently, and its use was exchanged for gallic acid, which did better, although it is not known whether the improvement was sustained. On the other hand, ergot has been successfully employed by Sydney Ringer, Murrell, Rendu, Saunders, and McClellan.

Sydney Ringer's case<sup>3</sup> was a very marked one of the disease. It happened in a man thirty-eight years of age, of temperate habits, in whose family there had been many cases of consumption. The quantity of urine varied from 9 to 22 pints. The patient was much troubled with thirst, loss of appetite, dry skin, and constipation. The disease was uninfluenced by quinia, cod-liver oil or jaborandi. But on three occasions the quantity of urine was greatly reduced by ergot. Thirty minims of the liquid extract every third hour, was the dose last employed. The urine was in twenty-four days brought down to a pint and a half daily. The man has been seen after the lapse of four and a half years,<sup>4</sup> the urine is normal in quantity, and he is strong and well.

In a case reported by Murrell,<sup>5</sup> the patient, a lad, had first taken belladonna with advantage, but without a permanent result. He was subsequently placed on ergot in aggregate daily doses of two drachms, kept up fully for a month, the quantity of urine falling from 3174 cubic centimetres to from 1700 to 1983 c. c. daily. The patient ultimately died from hemorrhages away from the hospital, and after a prostrating sea voyage. The improvement in the urinary secretion, it was thought, was permanent.

Rendu<sup>6</sup> details a case of polyuria cured by the administration of powdered ergot, at first given in doses of 50 centigrammes for six days, and sub-

<sup>1</sup> Mosler. Virchow's Archiv, LVI.

<sup>2</sup> Transactions of the College of Physicians of Philadelphia. Vol. II., 3d Series, 1876.

<sup>3</sup> British Medical Journal, December 25, 1875.

<sup>4</sup> Wm. Murrell, *ib.* May 8, 1880.

<sup>5</sup> *Ibid.* January, 1876.

<sup>6</sup> Bull. Soc. Clin. de Paris, 1879, vol. ii, p. 8, and La France Médicale.

sequently of a gramme. The affection followed a fall into the sea. Valerian had been found to be useless, and atropia did not suit, and was soon discontinued.

Saunders<sup>1</sup> has given us the history of a woman fifty-three years of age, who became so enfeebled by the excessive flow of urine, from sixteen to twenty pints in the twenty-four hours, and the constant thirst, that she was unable to attend to her household duties; the skin was dry and harsh, the bowels excessively constipated. She suffered greatly from pains in the back and side, and had been ailing for two years. Fluid extract of ergot, one drachm three times a day, reduced the urine so rapidly that it alarmed her. The remedy was kept up for two or three months; a few relapses being occasioned by its unauthorized discontinuance. A perfect recovery took place, and when last seen, she had been in excellent health for months.

Surgeon Ely McClellan,<sup>2</sup> U. S. A., treated a case successfully with ergot that had been uninfluenced by full doses of quinia. It was only of some weeks' standing when seen; but the patient passed from twenty to twenty-four pints of urine daily, of specific gravity of 1008, and the inclination to urinate was at night so urgent that he was almost deprived of sleep. Inordinate thirst, impaired appetite, and serious constipation were also very troublesome symptoms. Fluid extract of ergot, in half drachm doses, was administered every four hours. At the end of the first week, the amount of urine had sensibly diminished; at the end of the second week, it was reduced to one-half, and the thirst had almost disappeared. The remedy was then given three times daily for two weeks longer, when all the symptoms disappeared. Seven months after treatment had been suspended, the man remained well, passing forty-seven ounces of urine daily, of specific gravity, 1020.

On the whole, then, ergot makes good its claim to confidence in the treatment of diabetes insipidus. That it always succeeds, even when faithfully used, will not happen. But it is pleasant to be able to confront the statement of so recent and distinguished a writer as Senator,<sup>3</sup> that "the prognosis of diabetes insipidus is, in respect to recovery, very doubtful," with the array of cases here brought together.

#### EXTIRPATION OF THE LEFT KIDNEY ON ACCOUNT OF A LARGE FIBRO-CYSTIC TUMOR—RECOVERY.

BY T. GAILLARD THOMAS, M.D.,

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It may now be safely assumed that the operation of nephrectomy, or extirpation of the kidney, is one of the recognized and legitimate procedures of surgery. That this operation is one of necessity, and that without a resort to it, lives which by it could be saved, would necessarily be lost, no one can doubt who examines, even in the most cursory manner, the literature pertaining to the subject.

Fifty-seven cases are now on record, or rather that which I now relate makes this number complete, and from this array certain conclusions may be drawn as to the wisdom of resorting to the procedure, and the propriety of considering it one of the legitimate resources of the surgical art.

Mr. A. E. Barker,<sup>1</sup> writing in April of this year, declares that the number of cases on record up to that time was 54; that of these 26 recovered and 28 died; that lumbar operations show rather better results than those through the abdomen; and that in 11 out of the 54 cases, over one-fourth of all reported, an incorrect diagnosis had been made.

H. Braun,<sup>2</sup> writing in August, cites 56 operations. Of these 28 were laparotomies, with a result of 18 deaths and 10 recoveries; and 28 were lumbar sections, with 9 deaths and 19 recoveries.

The pathological conditions which have heretofore called for the operation, have been neoplastic growths, such as cysts, fibro-cysts, and sarcomas; cancerous disease; floating kidney; calculus; hydro-nephrosis; tuberculous kidney; and fistulous connection between the ureter and the uterus, or vagina.

It has repeatedly been performed upon very young children; for example, by Czerny upon a child eleven months old, by Kocher upon one two and a half years old, by Jessop upon one of the same age, by Hüter upon one of four years, and by Thornton upon one of seven years. Of these only two cases recovered, Jessop's and Thornton's.

I now proceed to give the history of the case which has called forth this paper.

Mary P., a native of Germany, 21 years of age, a pale and rather delicate person, was admitted to my service in the Woman's Hospital, October 13, 1881. Upon examining her I found in the abdomen a soft and obscurely fluctuating tumor, about as large as the uterus at the eighth month of utero-gestation. This was centrally placed, fell well down into the pelvic cavity, was perfectly movable, and was not tender upon pressure. The patient gave evidence of no special or peculiar symptoms, except that of very severe and constant pain in the abdomen. Her suffering was so great that she declared that she could no longer tolerate the tumor, and must have it removed. I saw no reason to suppose the tumor to be other than ovarian, and arranged for ovariectomy on the 15th of October, the patient being at once put upon preparatory treatment.

The operation was performed on October 15. As soon as the abdominal walls and peritoneum were cut through, I passed in my finger, discovered between the tumor and the symphysis pubis a large coil of intestine, and at once felt convinced that the growth was not of ovarian origin, though as yet no suspicion of its real nature entered my mind.

There was so much solid material about it that I had to enlarge my incision before I could puncture with the trocar. When I did so, six pounds of an amber-colored fluid poured away, the appearance of which led me to ask an assistant who was collecting some of it in a vial for examination, whether it was

<sup>1</sup> St. Louis Courier of Medicine, October, 1880.

<sup>2</sup> Louisville Medical News, January 22, 1881.

<sup>3</sup> Ziemssens' Cyclopædia, Transl. Vol. XVI.

<sup>1</sup> Lancet, April, 1881.

<sup>2</sup> Deutsche Med. Wochenschrift, 31, p. 421, August, 1881.

not urine. Now for the first time the thought of hydronephrosis presented itself to my mind. It was found, however, not to be urine.

I found the tumor everywhere adherent, and recognized the fact that to remove it, it would be necessary for me to tear it out of its bed. As I proceeded, a large number of ligatures became necessary, and a good deal of blood was lost.

Professor A. C. Post now suggested that a mass at the upper extremity of the tumor looked like the kidney, and, upon examination of this, it was found to be so. I now included all the emulgent vessels and the ureter in one ligature, severed the mass, and dropped the ligated portion back into the abdominal cavity.

The patient was then put to bed, and the ordinary treatment after ovariectomy was ordered. For the first three or four days she suffered such severe pain at the epigastrium that morphia had to be used hypodermically very freely for its control, and the temperature showed a tendency to rise. As the importance of the case, however, calls for a day to day history, I avail myself of the notes of the house surgeon of the hospital, Dr. Andrew F. Currier, to whose assiduous and intelligent care I feel greatly indebted.

On the 16th, at noon, the temperature was  $102^{\circ}$ , but by the douche, applied after Kibbee's method, which I invariably employ after ovariectomy when the temperature becomes exaggerated, it was reduced to  $100\frac{1}{2}^{\circ}$ . The pulse during this day ranged at about 100.

On the 17th, the morning temperature was  $102\frac{1}{2}^{\circ}$ ; the evening,  $100\frac{1}{2}^{\circ}$ , being kept down by the douche. Pulse, same as yesterday.

18th, morning temperature,  $100^{\circ}$ ; evening temperature,  $101\frac{3}{4}^{\circ}$ . Pulse ranged at about 100.

19th, A.M.,  $100^{\circ}$ ; P.M.,  $101^{\circ}$ . 20th, A.M.,  $100\frac{1}{2}^{\circ}$ ; P.M.,  $99\frac{1}{4}^{\circ}$ . 21st, A.M.,  $99\frac{3}{4}^{\circ}$ ; P.M.,  $101^{\circ}$ . 22d, A.M.,  $99\frac{3}{4}^{\circ}$ ; P.M.,  $101^{\circ}$ .

After this the patient progressed very favorably, and, with the exception of a mural abscess, presented no troublesome symptom, and at the present date, one month from the time of operation, she is up and fully convalescent.

The gross appearances of the tumor were these. The whole mass, fluid and solid, weighed  $10\frac{1}{2}$  pounds. The tumor growing from the capsule of the kidney on the convex surface of the organ, bent it over backwards so as to make this surface concave, and to render the portion on which was the hilus convex. The structure of the kidney appeared to the naked eye entirely healthy.

The tumor was submitted for examination to Dr. Welch, the pathologist of the hospital, and the following is his report of it:

"That portion of the kidney to which the tumor was attached was not sent to me, nor did I receive any of the fluid from the main cyst. The remainder of the kidney, and the greater part of the tumor, however, came into my hands.

"The growth is partly solid and partly cystic. The solid part is said to have weighed, when removed,  $4\frac{1}{2}$  pounds, and the fluid 6 pounds. There

is a main cyst, the size of which about equals that of a child's head. A part of the wall of this cyst has been removed, and was said to be closely adherent to the kidney. The rest of the tumor consists in greatest part of dense, white, glistening tissue, in which appear many cysts, varying in size from a pea to a hen's egg.

"In the dense stroma there are also many patches presenting a yellowish, translucent, gelatinous appearance, and composed of a wide-meshed tissue, infiltrated with serous-looking fluid. These cedematous-looking patches resemble the so-called geodes of the fibro-cystic tumor of the uterus, and from these geodes can be clearly traced the development of the cysts.

"The fluid contained in these cysts is of a yellowish or reddish-yellow color, and spontaneously coagulable. Whitish coagula were found floating in the fluid of all the cysts opened. The microscopical examination of the fluid showed the coagula to consist of finely fibrillated fibrin, and, in addition, revealed the presence of leucocytes and red blood-corpuscles in moderate numbers. (Unfortunately, I am not able to report the characters of the fluid in the main cyst.)

"The dense stroma, of which the solid part of the tumor is mainly composed, consists of fibrillated connective tissue containing branched cells. The fibrillated basement substance in most places preponderates over the cells.

"In the gelatinous patches (geodes) the fibrils of connective tissue form a loosely interlacing meshwork, containing serum and numerous leucocytes, with some branching cells. The appearance is that of mucoid tissue, but no reaction for mucin could be obtained with acetic acid. In the development of the cysts, the tissue in these patches acquires a looser and looser texture, the meshes become wider and wider, the interstitial fluid increases in amount, until a cavity with smooth or slightly vigorous walls is formed.

"The walls of the cyst are not lined by epithelium, but simply by the surrounding connective tissue.

"The exterior of the tumor presents a somewhat lobulated appearance, and is apparently covered over a part of its extent by peritoneum.

"The tumor is to be regarded as a fibroma in which cysts have developed, either by mucoid metamorphosis of the fibrous tissue, or by distention of the interstices of the connective tissue by lymph."

#### USE OF PLASTER-OF-PARIS IN THE TREATMENT OF CLUB-FOOT.

By P. S. CONNER, M.D.,  
PROF. OF ANATOMY AND CLINICAL SURGERY, MEDICAL COLLEGE OF OHIO.

THAT the deformity of club-foot may be corrected, it is necessary (1) that the distorted parts be put in normal position, and (2), that they be kept there; and, just in proportion as any plan of treatment accomplishes these indications, it is a proper one to be employed. Every one knows that in the great majority of congenital cases it is possible, during a variable but quite considerable time after birth, by



manipulation, to bring the foot into its natural place; and, could it be sufficiently long and steadily held there by the hand of parent or nurse, rectification of the deformity would almost to a certainty result. What can be substituted for such gentle yet efficient hand-pressure? Ordinary bandages and adhesive plaster strips have been employed, and, in many cases, with advantage; but not infrequently they have been found insufficient, and the adhesive strips often very much irritate the delicate skin of the foot and leg. As a rule, club-foot apparatus are not applied until the child is a few or several years old, when the deformity has become quite well developed, and when frequently strongly contracted tendons and more or less altered joint-surfaces much complicate the case. Against all the forms of these mechanical appliances several objections lie. In the first place, oftentimes they are badly adjusted, and in the majority of instances they do not maintain the correction made when they are applied; next, making pressure generally upon only a limited number of points, their use is very apt to be followed by local irritations, with resulting ulcers or callosities; again, they are expensive, and often require much repairing, and very many club-foot patients are the children of poor parents.

Recognizing the existence of these disadvantages, I have, for several years past, been experimenting with the plaster-of-Paris, recommended long ago by Little; the youngest subject upon which it has been applied being two weeks old. The success which has attended these experiments leads me to believe that this method of treatment may, in many cases at least, be advantageously employed. The application of it is easy; an ordinary plaster roller being turned over the foot, ankle, and the lower half of the leg. In quite young patients a layer of cotton may with advantage be laid on, and the bandage put over it; in older ones the latter should be placed directly on the skin. The thickness of the covering must of course vary with the amount of deformity and existing muscular power. Before the plaster begins to set, the foot is to be brought as near its normal position as can be done without causing any decided pain, and held in place until the hardening is complete. Great care must be taken not to attempt too much at first. Preliminary tenotomy is to be made or not, according to circumstances, but is seldom required in young subjects. At each subsequent dressing more and more rectification is to be effected. Removal of the bandage will be required ordinarily in from three to six weeks, and the treatment, so far as I have been able to determine, must be continued for from six to eighteen months, and afterwards either a half boot with stiffened sides or the usual club-foot shoe worn, the former being generally sufficient to prevent any reproduction of the deformity.

Two objections have been made to this method of treatment; first, that the dressing is a heavy and clumsy one, and second, that the proper development of the foot will be prevented. If properly applied, the weight of the plaster bandage is not so great as to prevent ready use of the limb if the patient is old enough to run about; and I have yet

to see a single case in which the growth of the foot has been interfered with, or in which flattening of the arch has been produced. The advantages of the method are, that it is efficient, cheap, distributes the pressure which must be made in order that the foot shall be brought round and kept in place, can be employed at a very early period, can be put in practice by any one of ordinary skill and judgment, and does not necessitate calling in the aid of the surgical instrument maker, to whom oftentimes the case is turned over with instructions to "put on a club-foot shoe," as though it was to be treated simply with leather and steel. If it be thought advisable to have the foot daily bathed and rubbed, instead of the plaster roller, the "Bavarian" dressing might be applied; but I have never used it, preferring that the pressure should be continuous for as long a period as possible, with only such intermissions as are absolutely required for the reapplication of the bandage. When the deformity is of long standing, and large callosities are present from pressure, either of a previously-worn shoe, or of the weight of the body in standing and walking, special care must be taken in applying the dressing, and rectification must be very gradually brought about; otherwise ulceration will occur, and, as a consequence, the treatment may, and probably will, have to be entirely suspended until the ulcer heals, and, as generally happens under such circumstances, whatever the method pursued, the malposition will rapidly be reproduced.

## HOSPITAL NOTES.

### ON THE TREATMENT OF FRACTURES OF THE UPPER EXTREMITIES, IN THE BOSTON HOSPITALS.

(Specially reported for THE MEDICAL NEWS.)

In general, it may be said that plaster or other immovable dressings are almost never used in the treatment of *fresh* fractures in the Boston hospitals. Stiff bandages of either plaster, silicate of potash, starch and glue, or dextrine, are, however, applied in a large majority of cases later on in the treatment, when the union of the fragments has become somewhat firm, and the swelling has subsided. Ether is given when reducing fractures of the thigh, and in other cases where there is difficulty in overcoming the displacement of the fragments, or in making an accurate diagnosis.

*Simple fractures of the humerus*, in its upper third, are treated by means of a shoulder-cap, made either of wire, gutta-percha, felt, or two layers of rather coarse gauze, with plaster well rubbed into it. This is moulded to fit the shoulder, a pad is placed in the axilla, coaptation splints are applied to the inside, back, and front of the arm, and the wrist is placed in a sling.

Simple fractures of the middle third are treated by a shoulder-cap extending well down towards the elbow, coaptation splints, and a sling for the wrist. Sometimes, in addition to the above, an internal angular splint is applied to the elbow.

Simple fractures of the lower third are put up on an internal angular splint; and this splint is also used for all fractures about the elbow, whether above, through, or below the joint, except those of the olecranon.

Dr. Ingalls, of the Boston City Hospital, is of the opinion that, in many cases of fracture of the humerus near the elbow joint, the best treatment is to make traction with the arm extended, instead of being flexed around an internal angular splint; and he intends to

treat these fractures in the above manner, and to pay particular attention to the use of passive motion as early as possible.

In cases where there is shortening, which cannot be controlled by the ordinary appliances, extension by a weight attached to the lower fragment, and counter-extension by means of elastic bands attached to the upper, passed across the body and fastened to the bed, is often employed.

In fractures high up, where there is displacement forwards, the side of the thorax may be used as a splint by placing a small pad in the axilla, coaptation splints around the arm, and over these a firm, well-starched Velpeau bandage. In this manner all leverage upon the lower fragment by the movements of the forearm is avoided. Instead of the Velpeau, a many-tailed bandage, the ends of which pass round to the opposite side of the body and are there tied, may be used.

**Compound fractures of the humerus.**—Where the external wound is small, it is sealed with lint soaked in compound tincture of benzoin, or carbolic oil; where it is more serious, it is thoroughly washed out with a solution of carbolic acid and done up in a "Lister dressing," carbolized cotton batting dressing, "Phenyl dressing,"<sup>1</sup> or constant irrigation with a carbolic solution is used. The above treatment is the one used in all compound fractures, whether of the upper or lower extremity.

In cases where the external wound is but slight, splints similar to those used in simple fractures are applied at once. Where the wound is more extensive, the arm, done up in one of the dressings mentioned above, is in many cases placed in a tin tray, or one made of gauze and plaster, and packed around with oakum, or carbolic gauze; and the wound is kept as far as possible in an antiseptic condition. As soon as the condition of the wound is such as to allow of more active treatment, splints of various shapes, which will as far as possible admit of the wound being dressed without necessitating their removal, are applied.

#### COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

(Clinic for Diseases of the Throat.)

#### CASES OF RARE CONGENITAL DEFORMITY OF THE POSTERIOR NARES AND THROAT.

(Under the care of PROF. GEO. M. LEFFERTS.)

**CASE I. Double Septum.**—The following curious abnormality was only discovered by accident during the rhinoscopic examination of a young man æt. 25, who had applied for treatment for a chronic catarrhal pharyngo-laryngitis. The posterior edge of the *septum narium*, from its point of emergence into the parts making up the vault of the pharynx to one half way in its course from the floor of the nares, was divided vertically into two distinct halves, enclosing between them a space large enough to contain perhaps the end of a lead pencil. This space was more or less triangular in shape, its base lying above, and was lined apparently with normal mucous membrane. Its depth was not ascertained, but an anterior examination of the nasal passages disclosed nothing abnormal as to the configuration of the septum. There was no history of injury to the nose or skull. No symptoms were referable to the condition, and its presence was of course unknown to the patient.

**CASE II. Congenital Lateral Deficiencies of Velum.**—A girl, æt. 19, in attendance upon the clinic for the treatment of an ordinary catarrhal affection of the throat, has, through the *velum palati*, to either side and just above the point where the anterior pillar of the

fauces loses itself in the broad expanse of the soft palate, a symmetrical, ovoid perforation the size of a small pea. The edges of these openings are smooth and rounded, are free from all cicatricial tissue, as are the parts in the immediate neighborhood, and are soft and lax. The patient has never had ulcerated sore throat nor indeed any severe affection of the parts, and remembers that the openings here described have always existed without change, a statement that is corroborated by her mother. The condition gives rise to no inconvenience, and demands no surgical interference.

**Remarks.**—The rarity of such instances as are here reported renders them of interest. They are, however, to be regarded as curiosities, and as of little practical import, except in so far as the recognition of their possible occurrence will guard against diagnostic errors. I know of but one case recorded in literature similar to the first described (Schroetter, *Laryngologische Mittheilungen*, Wien, 1875), and of none similar to the second. Langer, in a series of investigations of embryological sphenoid bones, suggested by the case just alluded to, found that a canal exists between the two halves of the sphenoid during the first months of foetal life, and rightly, I believe, classes such cases as the one that I have described as being due to an arrested development.

The same explanation probably holds good for the second case, but is not so readily demonstrable; indeed, the very seat of the lesion, away from the median line, militates to a certain extent against the hypothesis. No other, however, suggests itself for this particular and peculiar deformity occurring in this locality.

#### HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

Service of D. HAYES AGNEW, M.D.

#### A POSSIBLE COMPLICATION IN LITHOTOMY.

(Reported by J. WILLIAM WHITE, M.D.)

DURING a recent clinical lecture, Dr. Agnew, who was about to perform lithotomy, called attention to a temporary condition of the patient which necessitated delay. Etherization was complete, but the respiratory movements were hurried and excessive; the sphincters of the anus were entirely relaxed, and the anal aperture was patulous, an inch and a half or two inches in diameter, and moving in sympathy with the expansion and contraction of the thorax. In this manner it seemed to act as a valve, admitting air to the rectum, but not favoring its expulsion, so that for several minutes the lower bowel was in a state of distention. Of course, there would have been great danger of wounding it if the operation had been proceeded with under these circumstances. In a short time, however, as deeper anæsthesia was produced, the anus resumed its normal appearance, and the rectal dilatation disappeared. So far as we know, this possible complication of lithotomy has not been alluded to.

#### JEFFERSON MEDICAL COLLEGE HOSPITAL. CASES OF REMOVAL OF THE BREAST FOR CARCINOMA.

(Under the care of DR. SAMUEL W. GROSS.)

In carcinoma, Dr. S. W. Gross makes it an invariable rule to remove not only the entire breast, but its investing skin, connective tissue, and fat, the fascia of the pectoral muscle, and the axillary glands. If the muscles are involved, the nodules are unsparingly excised, and the apparently sound parts touched with the actual cautery or a strong solution of chloride of zinc. Even when the glands in the axilla are not palpable prior to operation, that cavity is always opened and thoroughly explored with the finger, since in not a few instances incipient glandular involvement is detected in this way.

<sup>1</sup> See Boston Med. and Surg. Journal, July 14, 1881. Antiseptic Surgery, Dr. H. H. A. Beach.

In dealing with the glands, if they have served as sources of infection of the surrounding tissues, through which they are matted together and form a confused mass, the contents of the axilla are removed by a formal dissection, care being taken to pass a catgut ligature around the vessels before they are divided. When, on the other hand, the disease is limited to the glands, and the carcinomatous structure is contained within their capsules, they are simply enucleated by the finger, or a pair of scissors curved on the flat. When there is much oozing from the pectoral muscle, the hæmorrhage is readily restrained by the application of napkins wrung out of hot water. The entire wound is then washed with a two per cent. solution of carbolic acid; a drainage tube is inserted into the axilla; the wound is closed as accurately as possible by sutures inserted some distance from its edges; and lint imbued with carbolized cosmoline, confined by a broad flannel roller, finishes the dressing. Conducted in this way, Dr. Gross believes that a certain proportion of cures follow the operation; an assumption which is verified by Case III. The scar left by such thorough removal of the tissues is remarkably small. In Cases II. and III., it was not over an inch in width, and it was soft and pliable. In Case I., the large wound was reduced, by the insertion of sutures and the application of adhesive strips, to an area one-third less than that of the palm of the hand.

**CASE I. Scirrhus of the Breast, Skin, and Axillary Glands—Thorough Removal of the Affected Structures.**—A robust, healthy-looking woman, forty-two years of age, the mother of nine children, first noticed, twenty-four months ago, a small lump above the right nipple. The latter began to retract at the expiration of one year; and at the same time nodules appeared in the skin, the largest of which, an inch in diameter, was situated near the mammilla, and the others, to the number of seven, occupied the upper and sternal borders of the heart. At the expiration of sixteen months, she noticed lumps in the axilla, which now formed a dense elongated mass in that cavity. There were no antecedents, nor was there pain in the upper end of the humerus on pressure. The entire organ, with its investments, and the pectoral fascia, was removed by a circular incision; the axilla was opened by a cut, which extended from the upper and outer side of the pectoral incision, and the diseased mass of glands, fat, and connective tissue were dissected out, seven vessels requiring ligation. The temperature rose to 100°<sup>9</sup>, and the pulse to 120, on the following morning; after which they gradually fell, and became normal on the morning of the fourth day. At the expiration of two weeks, when the granulations had reached the level of the surrounding skin, twelve epidermic grafts were inserted, and, when we saw the patient two days later, ten had taken.

**CASE II. Recurrent Scirrhus in the Axilla—Thorough Removal.**—A married, healthy woman, fifty years of age, was subjected to amputation of the entire breast (which was ulcerated, but mobile on the chest, and in the investing skin of which, towards its sternal border, there was a small carcinomatous nodule), and excision of infected axillary glands, on the 23d of October, 1880. On the 16th of November, 1881, the cicatrice was soft, pliable, and not over an inch in width; but a gland on the side of the chest, at the termination of the cicatrice, and a mass of glands in the axilla, were readily detected, of the existence of which she had no knowledge. Dr. Gross made a clean dissection of the axilla, removing a mass of glands and infiltrated tissues, along with an enlarged gland beneath the lower border of the pectoralis major muscle, a few of the fibres of which were also excised. Six vessels, including the subscapular artery and vein, were tied.

**CASE III. Scirrhus of the Breast and Axillary Glands**

—**Thorough Removal—Permanent Recovery.**—On the 4th of September, 1878, Dr. Gross amputated the entire breast, and cleaned out the axilla of a single woman, forty-eight years of age. The tumor was of twelve months' duration, and as large as a small lemon; the nipple was retracted, and the skin was adherent. At the end of six weeks the entire wound had closed, and the woman has since performed her duties as a laundry maid with perfect comfort. The cicatrice is soft and mobile, of a natural tint, and hardly an inch in width, and there is not the least sign of recurrence in the axilla. Thirty-eight months and a half have now elapsed since the operation, and Dr. Gross has every reason for assuming that the result is final.

## MEDICAL PROGRESS.

**TREATMENT OF EPITHELIOMA OF THE NECK OF THE UTERUS.**—Dr. CHÉRON, referring to the Italian experiences with this practice, employs the nitrate of lead in ulcerating epithelioma of the uterine neck. After cleansing the surface with charpie moistened with glycerin, or washing out the canal with perchloride of iron solution if there is much oozing of blood, he applies to the ulcerated surface with an insufflator the following powder: Plumbi nitrat. purif. 3i. Lycopodii 3ij. The powder is kept in position by a suitable tampon. Under the action of this preparation the suppuration diminishes sensibly and the odor disappears. The hæmorrhages are also suppressed. After twelve or fifteen of these applications, the engorgement of the cul-de-sac diminishes, and the general health is greatly improved.—*Journal de Thérapeutique*, October 10, 1881.

**A NEW THEORY OF URÆMIA.**—MM. FELTZ and RITTER have recently announced that the real cause of uræmia is a change in the proportional quantity of potassa in the blood. The amount of the potassic salts in the blood, as in the urine, varies with the quantity and quality of the food. A special alimentation, in which the sodic salts preponderate, long continued, has the same effect on the quantity of the salts of potassium, as a poor and insufficient diet. The quantity of the salts of potassium contained in the blood influences in a certain degree the amount of urea necessary to produce grave or fatal results. Suppression of the renal function by the simultaneous ligation of the ureters determines in the blood and in the serum a sensible increase in the potassic salts except the supplementary gastro-intestinal excretion. In this respect the alkaline salts obey the same law as urea and extractive matters, which increase in the blood under the same conditions. The most serious results of experimental uræmia are not connected with the retentive and accumulation in the blood of the urea or extractive matters of the urine, but, on the contrary, are produced by the injection of fresh, normal urine, or of equivalent solutions of the salts of potassium in distilled water. We think it must be admitted that the real agents of the toxæmia are the salts of potassium which accumulate in the blood.—*Bull. Gén. de Thérap.*, September 15, 1881.

**THE TREATMENT OF TYPHOID FEVER BY ANTIZYMOTICS.**—Dr. PECHOLIER, Agrégé of the Montpellier Faculty of Medicine, writes to the *Bulletin Gén. de Thérapeutique*, for September 15, 1881, on this topic. It is well known, he says, that creosote or phenic acid is absolutely opposed to all fermentation. Recognizing that typhoid fever is produced by a special ferment, he concluded to attempt the arrest of the pathological fermentation by the administration of antizymotic remedies, so long ago as 1868, and he therefore claims priority in



this mode of practice. MM. Desplats, Hallopeau, and Raymond, have ascertained by the graphic method the antipyretic action of the antizymotics. The special fermentation, which is the initial phenomenon of typhoid, is accompanied by the production of heat, as is the case in all kinds of fermentation. It is by suspending or moderating this fermentation, that creosote or phenic acid lowers the thermic curve. Large doses, he holds, are not necessary, and there is the danger in their use of exciting gastro-enteric irritation. When he finds prolonged administration necessary, he gives the remedy by rectal injection—10 drops in 150 grammes of water (about 5 ounces). The injections have, he thinks, a useful detergent and disinfecting action. This practice is not incompatible with the methods of hydrotherapy, but reserving cold baths for special cases, he generally employs tepid baths of  $82\frac{1}{2}^{\circ}$  to  $91\frac{1}{2}^{\circ}$  F., but he does not the less continue his practice of combating typhoid fermentation by the measure above mentioned. Proceeding in this way he has obtained remarkable results, and if not able to declare with M. Glénard, that in his hands no deaths occur from typhoid, he is happy in being able to affirm that deaths occur but rarely.

**SUCCESSFUL EXTIRPATION OF THE SPLEEN.**—Dr. Fernando Franzolini, attached to the Civil Hospital of Udine, and well known in Italy as a bold and careful operator in cases of abdominal surgery, has the honor of being the first in his own country to remove with success a diseased spleen. The operation has been performed now some 25 times in Europe, of which 3 or 4 cases were in Italy, with the result of saving in all 6 patients. Dr. Franzolini operated in the hospital named, on September 20, ult., upon a young woman of 22 years of age, affected with "simple, true, idiopathic hypertrophy" of the organ, and a month later she was reported as having recovered. The tumor extracted was  $9\frac{1}{2}$  inches long by  $6\frac{1}{4}$  inches wide, and weighed over 3 pounds. The abdominal incision extended from  $4\frac{3}{4}$  inches above the umbilicus to 4 inches below it, and the operation lasted 1 hour and 25 minutes. The method of Lister was fully carried out. All of the ligatures were dropped into the abdominal cavity, and the wound was closed without drainage. No blood escaped into the abdomen.

Dr. Franzolini was also the first in Italy to perform Battey's operation with success. This was on August 14, 1876, and to remove, with like result, the uterus and ovaries in a non-pregnant woman. His only Porro case was lost, as the woman was *in extremis* when he operated upon her.

**LEUCOCYTHÆMIA.**—Dr. J. E. Graham, Lecturer on Clinical Medicine in Toronto School of Medicine, gives the following as his conclusions from the study of a case of leucocythæmia:

1. That the essential features of leucocythæmia are the lymphoid growths, and the leucocytes found in the blood derived from them.
2. That the existence of similar growths is the essential feature of Hodgkin's disease, but in it the cells, for some reason which I cannot explain, do not find the way into the circulation.
3. That in both diseases the presence of these growths or deposits interferes with the manufacture of the red corpuscles producing anæmia.
4. That these growths bear a strong resemblance to those of a malignant character, especially sarcomata.
5. That progressive pernicious anæmia may arise as a consequence of leucocythæmia or Hodgkin's disease in the same way as it sometimes results from pregnancy, or any other condition which interferes with the proper elaboration of the blood.—*Canadian Journal of Medical Science*, November, 1881.

**REMOVAL OF UTERINE POLYPI.**—At a recent session of the Paris Academy of Medicine, the procedure adopted by several surgeons for the removal of uterine polypi was brought out in the course of the discussion. Léon Labbé uses the galvano-cautery; Verneuil, the wire écraseur; Gosselin, scissors; and Trélat contends that each plan has its excellences, and may be employed according to circumstances.

**DIABETES INSIPIDUS TREATED BY ELECTRICITY.**—Mr. C. P. B. CLUBBE reports the case of a woman, aged thirty-five, who was suffering from diuresis, and in whom iron, nux vomica, valerian, and bromide of potassium had been used without any marked effect. Faradism over the region of the kidneys was then employed every day for about twenty minutes for twenty weeks. There was very decided improvement up to the seventh week, when the daily average of fluid passed varied very slightly; improvement, however, being constant. Treatment was then stopped, and six months afterwards she was no worse, though still passing from six to seven pints of urine daily.—*Lancet*, October 29, 1881.

**PROF. TOMMASI-CRUDELI ON THE MALARIA OF ROME.**—In 1879 Klebs and Tommasi described the malaria microbe—*bacillus malarie*. The history of this parasite is not complete from the point of view of its pathogenetic and morphologic properties, but enough is known of its biological status to throw great light, it is probable, on certain important questions of public hygiene.

The *bacillus malarie* is an organism requiring air. The germs or sporules are often encountered in soils of very different composition, and frequently poor inorganic substances. Malarial soils are often found in localities which are not, and have never been marshy. In Italy malaria-breeding soils are found in some lowlands and on some mountains. On the other hand, all marshes are not malaria-producing. In all malarial localities the multiplication of the *bacillus malarie* takes place under three conditions: a temperature of about  $68^{\circ}$  F.; moderate but permanent humidity; and the direct action of the oxygen of the air on all parts of the mass. If one of these three conditions is absent, the multiplication of the bacillus and the development of the sporules are arrested. Hence it is that the most pestilential marshes do not engender malaria—although the temperature may be very high—when they are wholly covered with water, and no air can penetrate to the malaria-breeding soil. In the mud of malaria marshes the malaric ferment is always associated with a septic ferment. This association may be considered fortuitous. It is easy, in fact, to terminate all the phenomena of putrefaction in the palustral mud, and also to remove from them the power to produce septic infection, by means of a proceeding which augments the production of the malaric ferment to that degree that it becomes capable of producing pernicious fevers.—*Journal de Thérapeutique*, October 25, 1881.

**PURPURA HÆMORRHAGICA IN ITS RELATIONS TO MENSTRUATION AND PREGNANCY.**—Dr. ALBERT PUECH gives the following conclusions as expressing the results of his study of purpura:

1. Purpura hæmorrhagica occurs more frequently in the female than in the male.
2. It exerts a marked influence on the uterus whether in the empty or gravid state.
3. In the empty state, its influence can be manifested in three ways: *a.* It can suppress the menstrual discharge, and substitute it vicariously by its periodic occurrence. *b.* It may simply exaggerate the menstrual flow (*menorrhagia*). *c.* It may itself cause a hæmorrhage from the uterus (*metrorrhagia*).

4. During pregnancy, purpura has a tendency to cause abortion or premature labor.

5. Prognosis should in all cases be guarded, but in a general way it may be said that purpura is more serious in the woman than in man, and in pregnancy than when the uterus is empty.

6. Metrorrhagias have a graver prognosis than menorrhagias.—*Annale de Gynécologie*, October, 1881.

**A CASE OF MANIA AFTER SCARLATINA.**—Cases of psychical disturbance as a consequence of scarlatina are extremely rare, two cases, as far as we know, being all that have been as yet reported. The case reported by Dr. J. ROBESKE, in which a cure was ultimately effected, is therefore deserving of mention. The patient, a man aged twenty-one years, after a mild attack of scarlatina, in which there was delirium, was affected with hallucinations and subjective sensations; he could not be kept in bed, moving restlessly up and down his room, and tearing his clothes and bed coverings. This condition lasted about a week, when, under the action of chloral and morphia, he gradually improved; was willing to remain in bed and take nourishment. A decided desquamation of cuticle occurred at about this time, accompanied by violent neuralgia of the lower extremities; after about two weeks illness in all, he recovered completely.—*Deutsche Med. Woch.*, Oct. 8, 1881.

**CALABAR BEAN IN TETANUS.**—Mr. J. THOMPSON HAYNE reports three cases of traumatic tetanus treated with hypodermic injections of one-sixth of a grain of extract of physostigma; of his cases two recovered and one died.—*British Med. Journ.*, Oct. 29, 1881.

**A NEW SYMPTOM OF DISTURBANCE OF THE BILIARY FUNCTION.**—From a long and valuable article on this subject, MM. LÉPINE and GUÉRIN draw the following conclusions: 1. It is possible in an animal, either by establishing a biliary fistula in the peritoneal cavity, or by keeping the biliary passages for several hours under pressure, to produce the passage into the urine of an extraordinary quantity of incompletely oxidized sulphur, additional proof of its biliary origin being found in the slightly oxidizable properties of taurine and its derivatives.

2. In man, above all, when the excretion of bile is obstructed, the same anomaly may be found in the urine, though in a less degree. In general, it is transient, so that in a few days the opposite extreme may occur, or the normal condition be regained. In every case, the essential characteristic of this condition is not the increase alone of incompletely oxidized sulphur, but the increase in the proportion of difficultly oxidizable sulphur.—*Revue de Médecine*, Nov. 10, 1881.

**COLLYRIUM FOR DISSOLVING METALLIC FOREIGN BODIES FROM THE CORNEA.**—Dr. RODRIGUEZ reports the following case (*Revista de Ciencias Medicas*, 25 Oct., 1881).—A blacksmith, aged eighteen years, while forging a piece of iron, received in his left eye a small splinter of the metal, which remained there incrustated, in spite of all attempts to remove it. The following wash was then employed: Rose water, 90 grm.; Iodine, .05 grm.; Iodide of Potass., .05 grm.; the result was extremely satisfactory. The particle of metal was transformed into a soluble iodide of iron, and all traces of the foreign body had disappeared. The cornea regained its normal condition, and vision remained unaffected.—*Journ. de Méd. de Paris*, Nov. 12, 1881.

**THE TREATMENT OF SOFT CHANCRES AND CHANCROUS BUBOES BY SALICYLIC ACID.**—Without being an infallible specific which will take the place of all the other agents employed in these cases, salicylic acid is capable of rendering the most important service. It

has the merit that it is without odor, gives but little pain, is soluble in alcohol and glycerin, and does not soil the linen. As a vehicle, glycerin presents many advantages: it does not evaporate, and it maintains on the surface of the ulcers a permanent coating which prevents the access of air. The following formula is employed by Dr. Autier: Acid Salicylic, 2 grammes. Glycerin, 100 grammes.—*Thèse de Paris*—Dr. Autier, *Journal de Thérapeutique*, October 25, 1881.

**SUCCESSFUL PORRO OPERATION.**—The seventh Porro operation at the Santa Caterina Hospital of Milan, and the fifth success in order, was performed by Dr. Paolo Negri, Second Assistant of the Royal School of Obstetrics. The case was one of malacosteon, with a badly deformed pelvis; and the operation was performed on October 9th inst. Two weeks later the woman was regarded as safe for recovery. This gives Italy 34 Porro operations and 13 recoveries. The 7 cases in Santa Caterina Hospital resulted as follows:

Deformed by	Operator.	Woman.	Child.
1. Rickets.	Prof. Chiara.	Died.	Alive.
2. " "	" "	" "	" "
3. Malacosteon.	" "	Recovered.	" "
4. Rickets.	" Mangiagalli.	" "	" "
5. " "	" Chiara.	" "	" "
6. " "	" Mangiagalli.	" "	" "
7. Malacosteon.	" Negri.	" "	" "

**A NEW SOLVENT FOR DIPHThERIC MEMBRANE.**—Dr. W. HALE WHITE recommends spraying the throat, in cases of diphtheria or the trachea after tracheotomy, with an acid glycerin of pepsin, warmed up to 110° F. The fragments of membrane coughed up in the case in which it was used, he reports, were very soft and gelatinous as compared with ordinary diphtheritic membranes. He thinks, however, that the chief value of the pepsin is not to digest the large pieces of membrane, but to mix with the secretion in the smaller bronchi and prevent the formation of membrane there. The child died some time after, how long is not stated, from broncho-pneumonia; and it is reported that there was no evidence to show that the pepsin had had any evil effect on the air-tubes.—*Lancet*, October 22, 1881.

**POISONING WITH CHLORATE OF POTASSIUM.**—From a number of experiments made by Messrs. BROUARDEL and SHOTÉ they conclude that: *First*. Numerous examples leave no doubt as to the fact that large doses of chlorate of potassium (35-40 grammes for an adult, eight or ten times less for a child of two or three years) can produce death. *Second*. The intervals during which the successive doses are administered exert a great influence on the development and gravity of the toxic effects. If the doses are separated by long intervals, rapidity of elimination diminishes the danger. When they rapidly succeed one another, the danger is much greater.—*Jour. de Méd. de Paris*, October 1, 1881.

**TREATMENT OF SPERMATORRHOEA.**—Dr. NOWATSCHEK reports in *Schmidt's Jahrbücher*, January, 1881, a case of spermatorrhoea consequent on typhoid fever, the diagnosis resting on the presence of spermatozoa in the fluid which was constantly oozing from the urethra. Iron, quinia, and cold applications to the genitals were tried in succession with some success, but a cure was not accomplished. Lupulin, camphor, and bromide of potassium were without effect. Atropia was then employed, and the patient was completely cured in five days. The author cites a second case where he was equally successful with the hypodermic injection in the perineum of a one-per-cent. solution of atropia.—*Jour. de Méd. de Paris*, October 8, 1881.

**ARSENIC INTERNALLY AND SUBCUTANEOUSLY IN THE TREATMENT OF LYMPHOMA.**—A woman of sixty-five had difficulty in swallowing, and breathing and suffered from general feebleness, deafness, etc. Her condition was cachectic. Examination revealed a tumor in the posterior pharynx filling up the nasal and pharyngeal cavities; the submaxillary and axillary glands were also swollen and hard. These growths were made to disappear, and the woman was regarded as cured in five months. This remarkable result was accomplished by the combined internal and parenchymatous administration of Fowler's solution. The arsenic was given in large doses, mixed with acetated tincture of iron, from 8 up to 25 drops three times a day. In this way 28 grammes were consumed in the course of the treatment. The injections consisted of equal parts of Fowler's solution and distilled water, of which there was injected from one to three-tenths of the capacity of a Pravaz syringe (about 3 to 9 minims). There was but little reaction of the general organism, but a marked acceleration of the pulse. Locally, the tumors increased considerably in size with the first injections, but after the second week rapidly declined.—*Berl. Klin. Wochen.* 1880, No. 52.

CZERNY has employed the method of Billroth, above described, in the cure of glandular lymphomata. In six months he obtained a complete cure of a case, in which the patient had taken 746 drops and had received 76 injections of 10 drops each.—*Wien med. Wochen.* 1881, No. 2.

**TREATMENT OF SUBACUTE AND CHRONIC ARTICULAR AFFECTIONS BY OAKUM.**—Dr. CONSTANTIN PAUL has employed with success, at Lariboisière, the substance called oakum. The affected articulation is completely enveloped to a thickness of 1 or 2 centimetres. Treated thus, a case of *arthritis deformans* has been much relieved in some weeks. It has produced the best effects in *bronchitis*, in place of Burgundy Pitch plaster.—*Bulletin Gén. de Thérapeutique*, Sept. 15, 1881.

**THE METHODICAL EXERCISE OF RESPIRATION IN RELATION TO THE CONFORMATION OF THE CHEST AND TO THE GENERAL HEALTH,** is the title of a paper by Dr. DALLY, in which, after discussing various physiological questions concerning the respiratory organs, he proposes certain methodical movements for exercising the thorax.

1. The first or normal, is the vertical position, perfectly erect, as if standing against a wall, the arms hanging by the side. This position should be taken and kept for ten minutes at a time, a number of times a day.

2. The two arms and the hands are extended horizontally forwards, the palms of the hands facing. The hands are separated slowly, whilst the chest is inclined forward. Remain in this position thirty seconds, and inspire deeply by the nose. Return to the initial position, and expire. Execute this movement six times.

3. The arms hang by the body; raise them upwards—the fingers well extended—above the head, the palms looking forward. Take a deep inspiration. Let fall the arms alongside the body, palms open, and expire slowly.

4. Double rotation at the side. The subject being in the normal position (first), executes as large as possible, the arms well extended, double rotation laterally, and inclining the trunk forward each time that the arms are thrown behind, and never projecting the belly forward. This movement is executed entirely by the scapulo-humeral articulation.

5. The arms are crossed horizontally, the palms of the hands looking backward. Flexion lateral, alternately, of the trunk. The flexion will be then regular, transverse, the abdomen drawn in, the legs extended

apart, the pelvis fixed. The limit of the flexion is the vertical position of the elevated arm. Mild inspiration during the flexion; at its termination expiration. Execute these movements from six to eight times.

These exercises, if faithfully carried out, improve the shape and capacity of the thorax and check the development of incipient phthisis. According to Dr. Dally, dyspnoea, polysarica, and arthritic conditions are removed or sensibly ameliorated. Venous stases, varicose dilatations, and infarctions are, after some weeks of such movements, much improved when the circumstances are favorable. The great obstacles to this hygienic medication in our civilization are, the habitual idleness and laziness, and the indisposition to devote time and interest to such means, is the conclusion of Dr. Dally.—*Bull. Gén. de Thérap.*, Sept. 30, 1881.

**INJECTIONS OF BROMIDE OF POTASSIUM IN GONORRHOEA.**—In eighteen patients under observation there was noted in fifteen a rapid diminution or complete suppression of the erections. The injections are not very painful. They are used five times a day, the last injection being practised just before retiring. They should be retained in the canal one or two minutes.

The following is the formula: Water, 150 grammes. Glycerin, 10 grammes. Bromide of Potassium, 6 grammes. Laudanum, 2 grammes.—*Journal de Thérapeutique*, October, 1881.

**CASE OF GALVANO-PUNCTURE IN AORTIC ANEURISM.**—Mr. RICHARD CANNON reports the case of an aortic aneurism which had almost reached the point of rupture, the skin being reddened and very thin over the tumor, which was cured by the insertion of two needles connected with twelve Stöhrer cells. It is stated that when the needles were withdrawn no current was to be detected, so the favorable results may with equal probability be attributed to the mere presence of the needles or to the electrolytic action. The needles remained in the tumor only twenty minutes; at the end of ten days the tumor, which had only been the size of a walnut, had flattened down to the chest walls, pulsation and redness had disappeared, and there was no pain or cough. Iodide of potassium was administered internally throughout the treatment.—*Lancet*, October 22, 1881.

**GENITAL REFLEX.**—Dr. E. W. Saunders reports, in the *Alienist and Neurologist* for October, 1881, four cases of paroxysms of abdominal pain associated with adherent prepuce. In each case a cure followed circumcision.

**SENILE OSTEOMALACIA.**—From a long paper on this subject Dr. EMILE DEMARGE draws the following conclusions:

1. Osteomalacia can develop in old people as in adults.

2. We can admit clinically the existence of a form of osteomalacia localized in the vertebral column, the thorax, and the pelvis, and, although this form is more frequent in the aged, it can also develop in adults.

3. So-called senile osteomalacia is completely distinct from senile osteoporosis, and has the same lesions as true osteomalacia occurring in adults, from which it differs simply in the age of the subject in which it develops.—*Revue de Médecine*, September 10, 1881.

**HÆMOSTATIC PILLS.**—Dr. Huchan prescribes the following formula for hemorrhages of different kinds, as metrorrhagia, epistaxis, hæmoptysis, etc.

R Ergotin, Quiniaz Sulph. aa 3ss Digitalis, Ext. Hyoscyami aa gr. v. M. ft. pil. no. x. One every 2, 3 or 4 hours.—*Journal de Thérapeutique*, 10 November, 1881.



# THE MEDICAL NEWS.

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SATURDAY, JANUARY 7, 1881.

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## VOLUME FORTY.

In entering upon the fortieth year of its publication, and prompted by the desire of more fully meeting the requirements of the medical literature of to-day, and of furnishing the profession with a medium of more frequent intercommunication, *The Medical News* begins its weekly issue under most encouraging circumstances, and with the cordial commendation of a very large number of the foremost and ablest workers in the profession in all parts of the country, who have also assured its high standard of excellence by specifically promising to enrich its pages by their contributions.

The plan of the weekly *News* is so fully and faithfully set forth in the Publisher's prospectus, and in this first number, that it seems unnecessary to dwell further upon it, beyond saying that we shall especially endeavor to cultivate the vast field of clinical observation, embracing the scope of all the specialties, and to stimulate the publication in our pages, for the benefit of the whole profession, of the rich stores of clinical experience, the lessons of which heretofore have been for the most part confined to single observers. At the same time we shall assiduously labor to render every department of the *News* worthy of the entire profession which it aims to represent.

The functions of a weekly medical journal are multifarious: it must be the medium of transmitting the earliest intelligence of medical discoveries and progress; it must, in its editorial columns, represent the living thought of the day, and, while holding positive views, fully, fairly and forcibly discuss all current topics which interest the profession scientifically, socially, or politically; it must present a faithful record of the progress of medical science in

all countries; it must give prompt and reliable information concerning all matters, wherever they may be, which are of general medical interest; it must, in fine, fulfil the rôle of a professional newspaper. To enable it to attain this aim, the *News* will have the advantage of a large, carefully selected, and experienced editorial staff, of a corps of collaborators, embracing the most prominent workers in the medical profession of this continent, of special correspondents in all the principal cities of the world, and of a large reportorial staff, which will furnish full and accurate reports of the meetings of the principal medical societies in the United States and Canada which are available. With the ample resources and abundant experience of the publishers the profession are too well acquainted to render necessary any assurances as to the manner in which their portion of the work will be performed.

The columns of the *News* are open to the whole profession. Communications to every department are invited, and liberal compensation will be made for all original articles when published.

In developing so comprehensive a plan, which in its accomplishment will make a periodical that shall be absolutely indispensable to every physician who would keep himself abreast the professional thought and action of the day, and in its execution will require unremitting labor and involve weighty responsibility and a very large pecuniary expenditure, the *News* is encouraged by the belief that the profession want only the best, and that a periodical conducted on so broad and liberal a basis as is proposed will receive their unqualified and generous support, without which such enterprise becomes impossible.

In its management, the *News* will always be conducted for the advancement of the interests of the whole profession, and it shall be absolutely uninfluenced by any personal, school, or local interest; modelled on the highest type of weekly medical journalism, its scope shall be cosmopolitan and its character national.

With such a plan, and in the hope of its meriting their approbation and support, the first number of the weekly issue of *The Medical News* is presented to the profession.

## LOCAL TREATMENT OF LUNG CAVITIES.

IN the number of the *American Journal of the Medical Sciences* for October, 1881, we find a notable paper by Drs. Fenger and Hollister, of Chicago, on the "Opening and Drainage of Cavities in the Lungs." Our attention is thus invited to an extremely interesting, if not altogether new, practice. During the present century there have been numerous attempts to reach, by more direct means, the cavities excavated by tuberculous ulcerations, not to

speak of pleural effusions. The subject has been revived anew, and a more practical direction given to the operative procedures, by Professor Mosler, of Greifswald. On the 23d of September, 1873, Professor Mosler read a paper before the Society of Naturalists and Physicians, assembled at Wiesbaden, which subsequently appeared in the *Berliner Klinische Wochenschrift* for October 27, 1873, under the title—*Ueber lokale Behandlung von Lungenkavernen*. Mosler's scheme included the opening and drainage of pulmonary cavities by suitable drainage-tubes, and the application to the walls of the cavities of appropriate topical agents.

Prof. William Pepper, of Philadelphia, was engaged in a similar plan of treating lung cavities, at or about the same time, his preliminary publication appearing in *The Philadelphia Medical Times* for March 14, 1874.<sup>1</sup> Pepper's paper was "On the Local Treatment of Pulmonary Cavities by Injections through the Chest Wall."

Very recently drainage of the pericardium has been successfully carried on by Rosenstein, of Leyden. It is true, paracentesis of the pericardium has been frequently performed, and but a few months ago a very meritorious treatise on this topic appeared from the pen of Dr. J. B. Roberts, of Philadelphia. Rosenstein's case of drainage is, however, novel; for although puncture of the sac and fistulous openings externally are comparatively common, no one has before this deliberately opened the pericardium and inserted drainage-tubes to secure prompt removal of purulent fluid. The success of this case justifies the belief that the principles of treatment now established for empyema are equally applicable to the suppurating pericardium. It has been clearly established that in empyema, the main point is to secure a ready and complete evacuation of the pus; if necessary, excising a rib for that purpose. Can the same methods be applied to suppurating cavities of the lungs? To render the local conditions the same, it is necessary that the cavity be single, and that complete adhesions with the walls of the thorax exist. Let us see how far this declaration is sustained by the facts before us.

Of the six cases (five from various sources, and one their own) narrated by Drs. Fenger and Hollister, five proved fatal and one was cured. The fatal cases were examples of pulmonary disease, either inflammatory or tubercular; the successful case was one of echinococcus of the lungs. Davaine (*Traité des Entozoaires*, etc., Deux, Éd., Paris, 1877,) reports two cases of echinococcus of the lungs, in which operative procedures were successful. So long ago as January, 1812, Fréteau opened a cavity (*Opération de l'empyème*) and discharged 500 hydatids, the

rest being expectorated. In 1855, Dr. Vigla made an exploratory puncture with a trocar, in a suspected case of this kind, and injected into the hydatid cavity about 8 ounces (250 grammes) of a compound solution of iodine. (*Arch. Gen. de Médecine*, 5e Serie, tome vi., p. 282.) This case proved entirely successful.

Can the results of experience in the treatment of echinococcus cysts of the lungs be applied to phthisical cavities? We think not, and for the following reasons:

An echinococcus cyst is a purely local lesion, and the tissue of the lungs beyond the seat of deposit is healthy. The presence of an echinococcus cyst in the lungs does not involve any necessary change in the structure or function of the other organs of the body. When entirely and successfully removed, the local disturbance caused by their presence subsides, and the *status in quo* is restored.

In the case of pulmonary cavities caused by the usual conditions producing them, it is extremely rare to find a single cavity without adjacent lesions. Besides the more or less extensive pulmonary disease, complications exist in various organs which exercise a marked influence over the fortunes of the case. It is certainly true that when a cavity exists suitable for the treatment by drainage, more or less extensive caseous and tubercular deposits, dilated bronchi, interstitial pneumonia, etc., coexist. The successful drainage of a cavity, under such circumstances, can effect but a temporary alleviation of the symptoms.

Before the drainage of a cavity can be attempted, the exact position of it must be ascertained. It may be affirmed in the most positive manner that no considerable depth of healthy pulmonary tissue can be with propriety penetrated. There must be complete adhesion between the pulmonary and costal pleura at the site of the cavity. The cases conforming to these requirements are examples of advanced disease in which extensive excavations have formed in the upper or middle lobe, the anterior boundary being composed of the pleura, much thickened by organized exudations. It is difficult to conceive of any advantage to be derived from drainage of such a cavity, if, as is usual, extensive lesions coexist, and if the cavity has free communication with a bronchus. On the other hand, if the cavity occupy the major part of the diseased area, and is not satisfactorily drained, the general condition being fairly good, certainly results may be achieved by drainage sufficient to justify the procedure.

The questions concerned in dealing with hydatid cavities in the lungs are, as has been stated, very different. Without entering too much into detail, it will suffice to say that there are two modes of dealing with them, determined by the local conditions.

<sup>1</sup>Dr. Pepper's detailed publication appeared in the *American Journal of the Medical Sciences* for October, 1874.

When there is a solitary echinococcus cyst, which has merely displaced the pulmonary tissue without exciting a limiting inflammation, as in the case of Dr. Vigla, before mentioned, it suffices to inject some iodine solution, which causes the death of the parasite, after which it undergoes a fatty metamorphosis and disappears. If, on the other hand, the conditions are as in the case of Drs. Fenger and Hollister, and in the case of Dr. Fréteau—that is, a limiting inflammation, suppuration, and vast numbers of daughter and granddaughter vesicles—the proper practice consists in the evacuation of the cavity, in thorough drainage, and washing out with carbolized water, etc.

The injection of pulmonary cavities is a more generally available expedient. Although no distinctly curative results have been thus far obtained, there is promise in the method. The remedy thus employed has been iodine in some form. It is not essential to the success of this expedient that the cavity injected be situated superficially, or fixed by adhesions to the thoracic wall. If the diagnosis be accurate, the cavity can be readily reached by a suitable needle, even although somewhat deeply placed. This method may, in the future, be utilized for a different purpose. It may be possible to remove extensive caseous or tubercular deposits, by injecting into them medicaments which will exert a solvent action on the morbid materials, leaving the proper anatomical elements unharmed.

#### DRAINAGE OF THE WHITE HOUSE.

An examination of the sanitary condition of the Executive Mansion at Washington, with especial reference to the plumbing and drainage, was made necessary by the repeated complaints of its insalubrity, to which unusual prominence has been given by events occurring within the past few months. This investigation has been made by Mr. George E. Waring, Jr., who transmitted to Col. Rockwell, in charge of public buildings and grounds, a preliminary report containing the results of his observations.\* It is gratifying to learn that the defects were less serious than general rumor would lead us to expect. He found the quality of the plumbing reasonably good, but the system of drainage antiquated and defective, and in part radically wrong. This is what might have been expected from alterations and additions made from time to time by different persons, in lieu of a radical reconstruction in accordance with our present knowledge of the necessary sanitary requirements.

Among the defects discovered may be mentioned, the want of proper ventilation of the soil-pipes, in one or more cases its entire absence; an arrangement of the tank for supplying a considerable portion of the house with water in such a manner as to

render it subject to contamination from the main soil-pipe and from other sources; want of ventilation of two of the water-closet compartments, and the use, in one case, of the pan closet, which is now generally condemned as one of the worst of that class of sanitary appliances.

The authorities have doubtless been familiar with these faults, and their recommendations, if reported upon, have shared the fate which is inevitable when the necessary funds to defray the expense of reconstruction are withheld. It is humiliating that a great national calamity should be required as the occasion of which advantage must needs be taken to compel a thorough overhauling of the drainage arrangements of the White House, which should not, under any circumstances, have been permitted to remain in so unsatisfactory and neglected a condition. We are informed that the temporary modifications suggested by the report have been carried into effect, and that safety is now ensured.

When Col. Waring makes his final report, it is to be hoped that the recommendations for reconstructing the sanitary arrangements of the Executive Mansion in accordance with the requirements of the best practice of sanitary science will at once receive proper consideration, and that Congress will promptly make the necessary appropriation, so that in the future we shall hear no more about the insalubrity of the White House, from this cause, at least.

#### ONE SYMPTOM TREATMENT OF LOCOMOTOR ATAXIA.

THE hygienic treatment of the ataxia of posterior spinal sclerosis, oscillates between absolute rest and active exercise. Now comes Dr. Mortimer Granville with an expedient, which is opposed to the "rest cure," and which he says in less than three months, if his results are trustworthy, not only will the symptom which was regarded as conclusively indicating the existence of an incurable disease, be eliminated from the case, but other symptoms will disappear with it, and the general state of the patient be sensibly improved. We give the plan in his own words (*The Practitioner*, November, 1881, p. 336.)

"The patient is directed to stand with his eyes closed in his bath, after pouring a small can of cold water down the spine, and to persevere in the attempt to do this *steadily* for, at first a quarter of an hour, and as his state improves, for half an hour every morning. He is to be furnished with a chair or rail at hand, to which he can cling in case of need; but instructed to avoid using it except in actual danger of falling. When he commences the daily exercise, he will probably for some two or three weeks make little progress, but after this he will begin to be able to stand," etc.

Dr. Granville recommends in sthenic cases the



application of a mustard plaster at night, the full length of the spine, until redness is produced, in addition to the cold douche in the morning.

#### "FREE TRADE IN MEDICINE."

OUR valued contemporary, *The Medical Times and Gazette* of London, in a recent issue (November 12, 1881), discusses the subject of "Medical Education and Registration in America." In this article the regulations in the various States are commented on with fairness and candor. We refer to it, however, not to discuss the subject of medical education, *per se*, but whether this were better left to the medical profession and its legitimate institutions, or be made the subject of political and civic regulation. As our contemporary states it, "the conditions under which men should be allowed to practise medicine, the amount and kind of knowledge which they should be obliged to show, the way in which their possession of that knowledge can best be tested, the length of the preliminary training which they ought to be required to undergo, the extent to which the details of that training should be regulated by compulsory rules or left to individual option, these are questions upon which there are wide differences of opinion in this country."

In England and on the Continent of Europe, the system of "compulsory rules," of entire governmental control, obtains; in this country, there is, as our contemporary well expresses it, "free trade in medicine," and "the provision of competent medical advisers is left, so far as the central authority is concerned, to the unhampered operation of the law of supply and demand." Which is the better system? In England, it appears, there are wide differences of opinion on this question. They are not altogether satisfied that their plan is the better one. There is a large and influential minority who hold that the American system, notwithstanding the abuses to which it is subject, is, on the whole, the better.† They observe that the profession of medicine, left to its own resources, and untrammelled by obstructive legislation, is remarkably successful in the development of its powers. In the same article from which we have quoted, we learn that "American medical literature is very voluminous, and characterized by great originality, inventive genius, industry, and practicality." Now, as all the world knows, our medical literature is the growth of this century, of, indeed, the last thirty or forty years, and it is already being reproduced in European languages. It is also well known that certain departments of our art have been created in this country, and others notably improved. Free trade in medicine seems to work well here. Ought we not continue, as heretofore, to permit the law of supply and demand to regulate our growth? We

may properly correct flagrant irregularities by appropriate legislation, but ought we not refrain from such interference in our organizations and methods by authority of the government, as would hinder that free development and successful progress which we owe to our system of free trade in medicine?

#### THE THORACIC DUCT IN THE PRESIDENT'S CASE.

In another column we print an excellent letter from Mr. H. A. Kelly, a medical student at the University of Pennsylvania, who, with praiseworthy zeal, has carefully dissected the thoracic duct, with a view to determining whether it could have been injured, as has been inferred, in the case of the late President Garfield. His conclusion is adverse to any such opinion. It may interest our readers to know that the ball (calibre 44) is  $\frac{7}{16}$  of an inch in diameter, and that the track of the ball (supposing it to be no wider than the ball itself) passed in the middle line, within about  $\frac{1}{16}$  to  $\frac{1}{8}$  of an inch of the anterior surface of the wounded vertebra. Posteriorly between the track and the spinal canal a slightly greater thickness of bone intervened.

Whether the thoracic duct was injured primarily, may be doubtful. But the drawings of the specimen show that the body of the vertebra was almost wholly eroded at several points anteriorly as well as posteriorly; and it is not at all unlikely that the duct may have become involved in the later inflammatory action, and have disturbed the processes of nutrition to such an extent as to account for the subsequent rapid emaciation.

It is remarkable that the aorta escaped injury, for the ball must have almost grazed it; and it is no less remarkable that the spinal cord was not involved by the secondary erosion; and that in lifting the President so frequently the weakened spine did not give way and produce pressure on the cord.

Our correspondent has done good service in his careful investigation of the facts anatomically.

#### THE NATIONAL BOARD OF HEALTH.

THIS Board has just issued its annual report. We venture to say that in scarcely any of the many reports presented to Congress will there be found more important matters compressed into briefer space than in this one of three and a half quarto pages.

We have only space at this time to call attention to the excellent and valuable special scientific investigations which the Board has directed to be made by eminent scientists in various departments, such as Wood, Sternberg, Remsen, Martin, Hering, Pumpelly, Mallet, Bowditch, Stephen Smith, G. A. Smyth, and others. The subjects are national in importance, and include diphtheria, malaria, air and water currents in soils, potable water, the sanitary condition of summer resorts, arsenical papers, etc.

We hope to allude hereafter in detail to the results already obtained.

The expenditures of the Board have been—mirabile dictu—far less than the appropriation. The special sum of \$100,000, set apart for use in case of an epidemic, has fortunately not been needed.

## REVIEWS.

THE STUDENT'S MANUAL OF VENEREAL DISEASES. By F. R. STURGIS, M. D. 12mo, pp. 196. New York: G. P. Putnam's Sons, 1880.

This little book is a condensation of much practical information concerning the venereal diseases, arranged in the form of lectures. Beginning with the simple venereal ulcer, the author describes in accurate terms the clinical history, the customary treatment, and the sequelæ of chancroid, syphilis, and gonorrhœa, formulating and emphasizing in italicized paragraphs the general truths which underlie the received methods of diagnosis and treatment of these maladies.

We cannot better give an idea of its general plan and scope than by quoting a few of these paragraphs:

"The initial lesion of syphilis is usually indurated; when present, this is of great value; but its absence, which sometimes happens, does not change the nature of the lesion; it still remains syphilis. When the induration is absent, the diagnosis has to be made from other characteristics."

"Syphilis always begins by an initial lesion, seated at the point where the virus gained entrance, never in any other way."

"Paralysis of single muscles, or sets of muscles, are (*sic*) nine times in ten syphilitic."

"The average case of syphilis runs its course in from eighteen to twenty-four months. Under proper and careful treatment the graver forms of the disease seldom occur. After the disease has apparently run its course, and anti-syphilitic treatment has been suspended, the patients should be kept under occasional observation for another eighteen months, and if in that time no symptoms make their appearance, they may make their minds easy about the future."

Nothing could be better adapted to fix fundamental principles in the mind of the student than these and many similar axioms which might be cited if space permitted.

Teaching intended for students must necessarily be dogmatic, and it cannot be expected that in a "manual" the author should give prominence to or should even mention theories opposed to those he himself holds. He should, however, for obvious reasons, endeavor to avoid disputed questions, and to state in the clearest and most unequivocal language those propositions which have received universal acceptance.

This has, as a rule, been well done. Paragraphs similar to those above quoted, and embodying in a concise and intelligible form, much information, familiar of course to specialists, but not so well known or understood by the general practitioner or by the student, are frequent throughout the book, and are generally admirable in their terseness and comprehensiveness.

When, however, he says that "urethritis in the female is always due to some venereal affection," p. 154; doubts the existence of "vesicular and bullous [*sic*] syphilides," p. 60; asserts without qualification that "a chancroid becomes *worse* under a mercurial course, which is poison to it," p. 59; that when complicated with phimosis, "the initial lesion does not ulcerate," p. 38; and that strapping of the testicle in epididymitis "has

sometimes led to atrophy of the testis, and has been pretty nearly abandoned," p. 183, he lays himself open to criticism from those who upon any or all of these points venture to disagree with him.

There is a granular urethritis of females often following parturition, and becoming chronic, a traumatic urethritis, due to local irritation, sometimes, for example, to a vulvitis caused by rude and excessive copulation, and a urethritis which may appear consecutively to affections of the bladder, in any of which a suspicion, much more a dogmatic assertion, of the existence of venereal disease would be a great injustice to the patient.

The existence of vesicular and bullous eruptions as rare forms of syphilodermata, although also questioned by other syphilographers, has been, we believe, demonstrated beyond reasonable doubt; Dr. Sturgis does not distinctly say so, but of course refers only to acquired syphilis, as, a little later, in describing infantile syphilis, he remarks, p. 122: "The body is usually covered with large bullæ."

That a simple contagious venereal ulcer—a chancroid—is not commonly benefited by a mercurial course every one will allow, but that it necessarily becomes *worse* under it, or that there is any essential antagonism between the disease and the drug cannot be admitted. How seldom it becomes necessary to interrupt a mercurial course in the treatment of syphilis to permit of the cure of an intercurrent chancroid.

When phimosis comes on as a complication of the initial lesion, there is always more or less ulceration; indeed, it is in just these cases that the sore approximates most closely in its characters to the simple venereal ulcer.

In asserting that strapping the testicle has fallen into disuse, Dr. Sturgis undoubtedly represents the teachings of Cullerier, Bumstead, and others; but the cases in which atrophy has been attributed to it are, to say the least, open to doubt; no other bad results are even claimed to have been produced; and in this city the dressing is still very commonly employed. A procedure which, practised at the proper stage of this painful affection, will give rapid, safe, and certain relief, should not be discredited or discarded on such vague grounds. No other method of treatment except that by puncture—which is not adapted to exactly the same stage, is more repugnant to the patient, and has certainly been followed by herniæ testis—will compare with it in giving comfort and enabling the patient to resume his usual avocation.

We are pleased to see that he objects to the term "mixed sore;" but regret that, while discarding this title of that purely hypothetical lesion, he immediately alludes to it by a still more objectionable name, as a "double sore," and proceeds to speak of the simultaneous inoculation of two poisons, and their subsequent course and development—a view not by any means generally accepted even by dualists, and in many respects opposed to sound pathology.

Dr. Sturgis's assertion, already quoted, that in infecting chancre the induration is sometimes absent, might have been construed into an admission that syphilis sometimes follows the sore known as a "chancroid" or "soft chancre;" but he forestalls this by substituting for the latter the term "simple venereal ulcer," which he contrasts with the "specific venereal ulcer," or initial lesion. Now if by this Dr. Sturgis means that there are two venereal ulcers, one which is specific and one which is not, we heartily agree with him; but, as he subsequently proceeds to speak of "two poisons," of "two kinds of virus," of "double infection," etc., we perceive that in dividing these sores into "simple" and "specific," he has unintentionally misrepresented himself, as, according to these views, the simple sore is just as truly specific as the specific sore. We are the more

surprised at this, as Dr. Sturgis, not very long ago, was at least a skeptic as regards the specificity of the chancreoid, if not a pronounced unbeliever.

In turning over the leaves at random, we find a number of examples of loose construction and ungrammatical or undignified expression, which might readily have been remedied by a careful revision.

Such points are, however, only alluded to because so good a book should not be marred by errors which would seem to indicate haste or carelessness in preparation. On the whole, we can cordially recommend it as a reliable and satisfactory guide in the diagnosis and treatment of venereal disease, and as containing much useful information, not found—or, what is nearly as bad, very difficult to find—in many more elaborate and pretentious volumes.

**A SYSTEM OF SURGERY.** Edited by T. HOLMES, M. A. *First American from Second English Edition, thoroughly revised and much enlarged*, by JNO. H. PACKARD, M. D., assisted by a large corps of the most eminent American Surgeons. Three volumes. Vol. I., 8vo, pp. 1007, Pl. ix and 245 wood-cuts. Philadelphia: H. C. Lea's Son & Co., 1881.

To edit Holmes' "System of Surgery" is no light work, and we must congratulate Dr. Packard on the manner in which it has been done. The authors of the original English edition are men of the first rank in England, and Dr. Packard has been fortunate in securing as his American coadjutors such men as Bartholow, Hyde, Hunt, Conner, Stimson, Morton, Hodgen, Jewell and their colleagues. They have revised and added to all the articles except three, which were found so complete as not to require any additions. The new matter varies considerably in amount and character, but is always judicious and useful. In some cases it is very slight, while in others the additions are large in amount and radical in character. Perhaps no chapter has been more difficult to revise than the one on Tumors and Cancers, by Sir James Paget and C. H. Moore. The nomenclature and classification of such new growths has undergone such a decided change within the last few years, that Dr. Longstreth has had no little trouble in welding the old and the new matter into one homogeneous whole. It has been well done, however, and presents the matter intelligibly, and as briefly as possible. To our thinking, it would almost have been better to have written the chapter entirely anew, as is to be done with the articles on the Skin, and Absorbent System. But in view of the still unsettled state of our knowledge, perhaps it is better as it is, since it makes the reader more familiar with the different methods of classification, and therefore the varying terms employed by different authors.

The illustrations of a technical book, especially one that is intended to be so widely circulated among practitioners in the country, where they can have access to no museums and rarely perhaps have post-mortem specimens to examine and study, are of the greatest importance. We are glad, therefore, to see that the original number of wood-cuts has been increased about fifty per cent., while the chromo-lithographs of the second English edition (for they did not appear in the first) have been very well reproduced, but their lettering is too faint, and at night especially is not readily legible.

As a whole, the work, if we may judge by this first volume, will be solid and substantial, and a valuable addition to the library of any medical man. It is more wieldy and more useful than the five volume English edition; and with its companion work—Reynolds' "System of Medicine,"—will well represent the present state

of our science. One who is familiar with those two works will be fairly well furnished head-wise and hand-wise.

**A TREATISE ON THE DISEASES OF THE NERVOUS SYSTEM.** By JAMES ROSS, M. D., M.R.C.P., Lond.; Assist. Phys. to Manchester Royal Infirmary. 2 vols., pp. 594, 1000. New York: William Wood & Co., 1881.

These portly volumes are intended, in the words of the author's preface, to give a tolerably full account of the diseases to which the nervous system is liable, with the exception of the mental diseases. The first volume opens with a consideration of the structure and functions of the nervous system, in which the author treats of the anatomical arrangements and the physiological functions. This is well brought up to date. Thus he gives an account of Meynert's Projection System. He follows Landois' Physiology in his accounts of the anatomical structure, and his figures are derived from this source chiefly. As regards microscopic structure, he has based his account on Ranvier's largely. General etiology and general symptomatology close the first, or general part of the work.

In Chapter VI., he discusses trophoneuroses. In this we observe that he passes under review the contributions of Waller, Schiff, Erb, and especially of Ranvier. In the chapter on the diseases of the nerves of special sense, there is a good account of the ophthalmoscopic appearances in optic neuritis, and a plate exhibiting the changes in the fundus of the eye. This part of the work relating to diseases of the cranial nerves, is well illustrated by cuts taken from Landois' and Hermann's physiology.

Pursuing an anatomical arrangement, he discusses diseases of the cervical and brachial plexuses after the study of the cranial nerves. He first takes up the sensory, and follows with the motor affections. In the diagnosis of paralyzes, he uses electricity in accordance with the most recent views, and gives a good account of the reactions of degeneration in the peripheral and spinal paralyzes.

The second volume opens with the diseases of the spinal cord and medulla oblongata, or rather with an anatomical and physiological introduction. The "system diseases of the spinal cord and medulla oblongata"—the poliomyelopathies—are well handled, and the articles are illustrated with plates and wood-cuts. The contributions of the most recent publications are here fully presented. In "the mixed diseases of the spinal cord and medulla oblongata," we find the same careful and thorough treatment.

The last part is devoted to the diseases of the encephalon, in which the doctrines of the localization of functions are fully stated, and the various maladies adequately described.

From this brief sketch, it will be seen that this work presents in full detail the diseases of the nervous system. It is a highly creditable production. It is, however, too voluminous, and might be much condensed with advantage. The anatomical and physiological introductions to the several divisions of the subject, might have been omitted, because these topics are treated of more fully by those special works devoted to anatomy and physiology respectively. On the other hand, it may be alleged that the student of nervous diseases will nowhere else find all the facts brought together in a form so convenient and serviceable. Again, cases are related in detail occupying much space, and although interesting enough in themselves, are out of place in a strictly didactic treatise. With these exceptions, we have only praise for the work; which we regard as eminently suitable to the needs of students of nervous diseases. It is true we do not find any original contri-



butions to knowledge, but we have offered that which is better for the purposes subserved by such a work—a full and accurate account of the subject, showing the author's mastery of the whole domain of nervous maladies.

**THE MOTHER'S GUIDE IN THE MANAGEMENT AND FEEDING OF INFANTS.** By JOHN M. KEATING, M. D., Lecturer on the Diseases of Children at the University of Pennsylvania, etc. 12mo, pp. 118. Philadelphia: Henry C. Lea's Son & Co., 1881.

Though the average of births to marriages may be steadily decreasing, the number of "Mothers' Guides" and "Infant Managements" is decidedly on the increase, and in a time which may be calculated with some accuracy, there will be a special guide, neatly bound and convenient for the pocket, for each mother. But as by that time the number of medical graduates will allow of one for each family, he will probably recommend his own guide for his family, or furnish it at a reasonable rate.

Dr. Keating's Mother's Guide is of a higher order than usual, and draws dangerously near that line which should separate the popular from the true scientific medical work. Perhaps he even oversteps the line, but if so, he does it with rare judgment and discretion. It is just the book to give the mother about to take her family to the country or sea-shore, where doctors are scarce or difficult to reach. Guided by it, almost any woman of average intellect will be rendered better able to cope with the sudden emergencies of croup, cholera infantum, or convulsions, and yet, we trust, will still feel that the doctor, when he comes, knows a little more about the case than Dr. Keating's book has taught her; for on this point the author has been especially on his guard. While we do not agree with him in his estimate of the relative success of wet nursing and bottle-feeding, still his recommendations are in the main safe and simple, and his descriptions of the salient diagnostic points in the few diseases of which he treats are admirable.

## SOCIETY PROCEEDINGS.

### NEW YORK SURGICAL SOCIETY.

*Stated Meeting, November 22, 1881.*

DR. T. M. MARKOE, PRESIDENT, IN THE CHAIR.

**Congenital Dislocation of the Hip.**—Dr. C. T. POORE presented a patient, a child seven and a half years of age, who had congenital dislocation of both hips. It existed without assignable cause. The deformity was not noticed until the girl began to walk. Referring to the pathology of this affection, Dr. Poore remarked that there were two classes of cases; the first, that in which the capsule of the joint is very much elongated, and permits of a sliding up and down of the head of the bone; the second, that in which there is no motion permitted by the capsule, and in that form the limb could not be drawn down. In some cases the head of the bone is much diminished in size, and it had been supposed that the dislocation was due to an arrest of development in the head of the bone as well as the malformation of the acetabulum. With regard to treatment, there had been four cases in which it had been said that the affection had been cured. One case was treated by simple extension. Mr. Brodhurst, of London, had divided all of the muscles inserted in the trochanter, and brought down the limb into its proper position, and held it there, and the patient went about without an instrument at the end of six months. Mr. Holmes saw Mr. Brodhurst's case, and testifies in re-

gard to its success. In France, cases had been treated by scarifying the point in the pelvis where it was desired that the head of the bone should be placed, and then bringing the head of the femur down to this point, and retaining it there, and it had been said that very good results had been obtained. It had been claimed that the muscles in this class of cases are apt to be atrophied, but the patient which Dr. Poore presented did not illustrate that statement.

**Compound Fracture of the Leg.**—Dr. ERSKINE MASON read a paper on this subject (which will appear in full in an early number number of the MEDICAL NEWS), in which he considered especially the period of time required for repair of compound fracture of one or both bones of the leg, as well as the method of treatment according to his own experience. He had had thirty cases of which he had complete notes from the time of the accident up to the date of their discharge from the hospital. In reviewing the notes of the cases which he had met in his private practice, about the same results had been obtained. He had used almost every variety of splint, and finally reached the conclusion that the plaster-of-Paris dressing, in some one of its varieties, with or without brackets, met the indications in the majority of cases, applied either early or late, better than any other appliance. He had used "through-drainage," in connection with the plaster-of-Paris splint, and it had become with him a favorite mode of treatment. The results which he had obtained had been better than those which usually followed the old practice of sealing the wound. Dr. Mason then spoke of the too free use of the drainage-tube, or at least its too early introduction. His observation in these cases had also led him to believe that we might have too implicit faith in antiseptic dressings, at times, and attempt to save limbs which results proved should have been condemned to amputation.

Of the thirty cases, there was fracture of the tibia in sixteen; of the fibula, in three; of both bones, in eleven. In seven cases amputation was required, primarily in five, of which three recovered and two died; secondarily in two, and both recovered. Eighteen cases were treated by plaster-of-Paris dressings, either by the bandage alone, or assisted and strengthened by brackets. Of these, nine were put up at once, and nine were dressed after the lapse of some days, the average period of treatment being twenty-four days. In the cases in which plaster was applied immediately after the accident, the average period of removal of the dressing was twenty-four days, and in the other cases thirty-eight days. Among the eighteen cases, there were four deaths; one from pyæmia on the eighth day; one from shock, the patient dying on the forty-first day; one from alcoholism on the seventh day; one from erysipelas, death occurring on the sixty-first day. The average duration of the treatment was eighty-two days. Four cases were treated by "through-drainage." The average duration was forty-nine days. Several other cases were treated by the same method, and his impression was that they had all done well. Some of the cases had been treated by Volkmann's posterior tin splint with jute, and the average duration of the treatment was sixty days. Of these, there were two deaths; one of pleuro-pneumonia and septicæmia on the eighth day, and one of erysipelas on the seventy-eighth day.

Dr. POST asked whether fracture involving the tibia without the fibula in sixteen out of thirty cases was not an unusual proportion.

Dr. LITTLE remarked that, with fracture involving the lower third of the tibia, fracture of the fibula at the junction of the middle and upper third also took place in the majority of cases, consequently the fracture of the fibula was well covered with muscles and frequently

escaped notice. He suggested that that fact might possibly have obtained in some of Dr. Mason's cases.

Dr. MASON remarked that that point was taken into consideration; that he examined all of the cases himself, and there was no fracture of the fibula.

Dr. POST asked if, according to the experience of the members, it was usual for the fibula to share the fate of the tibia.

Dr. SANDS said that his experience accorded with that given by Dr. Little.

Dr. W. T. BULL remarked that fracture by direct violence frequently involved the tibia without implicating the fibula. He had seen three or four such cases. Again, fracture produced by heavy weights falling upon the limb, might fracture the tibia without involving the fibula. He thought that in a fair proportion of the fractures produced by direct violence, the tibia alone, without the fibula, was involved.

The PRESIDENT remarked that his impression was that the proportion, as it appeared in Dr. Mason's paper, was placed much too high, and suggested that it might be apparent rather than real, from the fact that the fracture of the tibia might have been reported as compound, and that of the fibula as simple.

Dr. YALE suggested that the cases reported by Dr. Mason were only those of which he had complete notes, and, therefore, it may have occurred that in those there was fracture of the tibia only.

Dr. J. L. LITTLE believed that his success in the treatment of compound fractures during the last twenty years, had been due especially to the use of a fixed apparatus, so that the limb could be dressed at any time without disturbing the fragments. That method of treatment he learned in the New York Hospital. Before he introduced the plaster-of-Paris dressing, the ordinary method of treating compound fractures was by the use of the fracture-box with bran, which permitted the fragments to move upon each other every time the limb was removed from the box for the purpose of renewing the dressings. After the introduction of plaster-of-Paris, he treated a large number of cases by the use of the posterior plaster-of-Paris splint, which left the anterior portion of the limb uncovered, a piece being cut out so as to expose the wound, and then the limb was placed in a fracture-box. To prevent pus from running between the splint and the limb, he applied a piece of oiled silk, which was made to adhere to the limb by the application of collodion, and made a little trough through which the pus could flow, and not enter the fracture-box. Under such treatment, the limbs did better than under the old plan of treatment, by the use of only the fracture-box and bran. During the last few years, he had added to that mode of dressing the limb the antiseptic method, and under the combined treatment, his cases of fracture had uniformly done well. He retains the limb in the fracture-box not more than a week or ten days, if the case does well, when it is removed, and a new plaster splint and bandage is applied, and the patient is allowed to sit up and support the limb upon a chair. He had uniformly used Lister's dressing up to about six weeks ago, when he had a case of compound fracture of the leg, in which the tibia protruded through the clothes so as to be seen upon the outside. In that case, after reducing the fragments, he injected the wound with a solution of carbolic acid, one to fifty, then covered it with borated cotton saturated with the same, and over the whole he placed ordinary cotton and secured it with a bandage. The limb was then tied up in a pillow, and a straight splint applied upon either side of the pillow, and it remained in this temporary dressing for four days, during which time there was no rise of temperature, and no discharge appeared through the dressings. He then removed the dressings, and applied a plaster-of-Paris splint; dressed

the wound again with borated cotton and carbolic acid, which had been continued up to the present time, and there had been no bad symptoms whatever, except at the end of fourteen days, when some displacement took place accidentally, and there was slight inflammation about the wound. There was, however, no rise of temperature, and no chill, and the patient, who was a man sixty years of age, at the present time was doing well.

Dr. BRIDDON thought that the fracture-box had been discarded altogether. He could not conceive of a more painful plan of treatment. He advised the application of the plaster-of-Paris dressing immediately, introducing a drainage-tube, covering the wound with thick pads of oakum, and suspending the limb in a sling. This method of treatment he thought was much more comfortable than the use of the fracture-box. He certainly believed, with Dr. Little, that the means which obviated the necessity for frequent change of dressing were the best.

Dr. LITTLE said that he had always condemned the plaster-of-Paris bandage in the treatment of recent fractures. He was well aware that experts could apply such a dressing without danger, but for the ordinary practitioner, he thought that the use of the plaster-of-Paris bandage was always attended with a great deal of danger, such as might arise from interruption of circulation and consequent gangrene. On the contrary, the plaster-of-Paris splint, which he used, leaves the limb open upon its anterior aspect entirely, and it is almost impossible to have obstruction to the circulation occur as a result.

Dr. POST believed that in compound fractures, attended with severe injury to the soft parts, it was safer to place the limb in a fracture-box than it was to put it up immediately in an immovable apparatus. He believed that he had seen cases of gangrene which were due to the fact that the limb had been placed in an immovable apparatus at once, and that the limb could have been saved had it not been subjected to such pressure. The fracture-box with bran possessed the advantage of giving equable support without producing undue pressure upon any part of the limb.

Dr. BRIDDON said that he could accept Dr. Little's treatment by the use of the posterior splint, as it was about as serviceable as the plaster-of-Paris bandage, but he could not see the necessity of putting the limb in a fracture-box.

Dr. LITTLE thought that it was easier to put the limb in a fracture-box than it was to put it in a sling.

Dr. W. T. BULL had abstained from the use of the plaster-of-Paris bandage where it was necessary to frequently change the antiseptic dressings during the first two weeks, inasmuch as it would be laborious to remove and reapply the plaster dressing every three or four days. Again, he thought that the drainage-tube should be withdrawn after the period of granulation had been reached, and the wound treated openly. Then the limb might be placed in a plaster-of-Paris splint, and the dressings applied to the wound through a fenestrum. Previous to that stage, he had almost always used Volkmann's posterior tin splint, and suspended the limb in an iron cradle.

Dr. BRIDDON thought the danger of gangrene from pressure, mentioned by Dr. Post, incident to local swelling of the limb, could be obviated by using cotton-wool very thick next the limb, and over that applying the plaster-of-Paris bandage.

Dr. POST remarked, with regard to drainage-tubes, that he had known mischief to be done by their acting as foreign bodies when retained too long in the wound.

Dr. LITTLE said that Volkmann, at the London International Medical Congress, referred to the fact that drainage-tubes had been permitted to remain in various

parts of the body without producing any irritation, and it subsequently became necessary to cut them out.

Dr. POST had known indurated sinuses to be the result of leaving them in position too long.

The PRESIDENT asked Dr. MASON what his impression was with reference to sealing the wounds in compound fracture, after the old plan, which might be called Sir Astley Cooper's method, as compared with covering them with antiseptic dressings.

Dr. MASON replied that his experience had been limited to five cases; two of the leg, two of the thigh, and one of both bones of the forearm. In those cases the strict antiseptic dressing was used, and he believed the wounds closed sooner than they would have done under the old plan of sealing the wounds with collodion and cotton. He was satisfied that the antiseptic dressings gave the best results.

Dr. YALE referred to one case of compound fracture of the leg, in which the Lister dressing was applied to the wound, and in less than ten days it was removed, and the case was treated as one of simple fracture.

Dr. BULL thought that the surgeon might be guided somewhat by two considerations; first, the character of the violence; second, the damage done to the soft parts. If the violence was such as did not comminute the bones, and the opening was small, and there was evidence that the soft parts had not been extensively contused, and no great amount of blood had been effused into the tissues, he would prefer to use the antiseptic dressing. To settle these questions, however, was sometimes a matter of considerable difficulty, and required a somewhat varied experience. He had seen perhaps half a dozen compound fractures of the leg, involving both tibia and fibula, where pin-hole wounds of that kind existed, and there was no reason to believe the fracture in the bones was extensive or comminuted, and he had put on the antiseptic dressing, and the result had been entirely satisfactory, and he should prefer it to sealing up the wound in the old-fashioned way.

Dr. SANDS thought that the results of treatment of such cases of compound fracture of the leg were very much better than the results obtained ten or fifteen years ago at the New York Hospital. In those days it was rather expected that complications would ensue in such cases; but, at the present time, serious inflammation or septic infection seldom occurred during the treatment of a compound fracture. In the Roosevelt Hospital there were now three cases of compound fracture of the leg, treated simply by washing out the wound with carbolic acid, and then covering it with antiseptic dressings; in two of these the wounds had closed entirely, and in the other, although the wound was not completely healed, it was nearly so, and no bad symptoms had at any time been developed. He had no doubt whatever that the antiseptic plan of treatment gave much more favorable results than the old-fashioned practice of sealing the wound.

Dr. LITTLE said that at St. Vincent's Hospital a large number of cases of compound fracture were treated, and the rule was always to wash out the wound with carbolic acid and apply an antiseptic dressing, and it had now been four or five years since he had seen a case of compound fracture in which there had been discharge sufficient to penetrate the dressings; certainly he had not met with a case in which it became necessary to make a counter-opening to afford exit for pus.

Dr. POST referred to a compound fracture of the leg, situated in the immediate vicinity of the ankle-joint. The bones were badly comminuted, and the soft parts were extensively lacerated. He attempted to save the limb. He washed the wounds thoroughly with carbolic lotion, inserted drainage-tubes, and put up the limb in a plaster-of-Paris apparatus, and for several days there

were good prospects for saving it; gangrene, however, occurred, and amputation became necessary. The patient died on the following day of tetanus.

Dr. MASON asked Dr. Little if, in the treatment of cases of compound fracture at St. Vincent's Hospital, drainage-tubes were used.

Dr. LITTLE said they were very rarely introduced.

Dr. LANGE thought it was especially important in cases of compound fracture to consider whether or not the wound was already infected. If the wound was perfectly fresh and without infection, antiseptic dressing might be applied simply to prevent infection, but if infection was already present, then the application of an antiseptic dressing alone could not prevent inflammation. In the latter class, disinfection of the wound should first be made, and each case must be treated according to its special features. He thought it was, according to common experience in compound fractures that large, open, external wounds were not so dangerous as those of moderate or small size, with extensive injury to the soft parts and the bone inside. Therefore, it was important to decide, with reference to every surgical wound or injury, how extensive had been the injury to the bone or the soft parts, whether a great deal of tension and swelling was to be expected, and how profuse the discharge would probably be, and if the circumstances were such that a profuse discharge was to be expected or such loss of vitality in the parts as is favorable to the development of inflammation or decomposition, as free exit for it as possible must be maintained. With a view to prevent inflammation in a case of compound fracture, or if inflammation was present to counteract it, immobilization must above all other things be observed. It must, however, be kept in mind that through immobilization we prevent inflammation in so far only as we avoid that condition of tissues in which they represent a more favorable soil to the development of inflammation. Inflammation in compound fractures in most cases was infection from without. Immobilization had been practised long ago. The good results, however, dated since that comparatively recent period when surgeons learned to combine it with strict antiseptic measures. Listerism, of course, had not the monopoly for the latter, although it was a very efficient method. Antiseptic procedures, however, were indispensable for good results in compound fractures, and it was more than probable that all kinds of successful treatment owed their efficacy to their antiseptic qualities. It was only necessary to state what constitutes the latter.

Dr. SANDS remarked that the difficulty hinted at by Dr. Lange was an objection to the employment, as a general rule, of the plaster-of-Paris splint, which envelops the limb except where it is exposed at the situation of the fenestra. The advantage of the plaster-of-Paris splint in simple fracture, is the immobility of the limb which it secures, preventing thereby pain and injury of the soft parts caused by movement of the fractured ends of the bone. If this end could be accomplished after compound fracture, the use of the splint would be equally advantageous as in a simple fracture, but he thought that this was rarely the case. If the plaster-of-Paris splint was applied with sufficient pressure to secure immobility, we expose the patient to the risk of mischief resulting from swelling, and may be obliged to remove the plaster-of-Paris splint after the lapse of a few hours or days. If, on the other hand, to avoid this danger liable to arise from swelling of the limb, we put it up loosely, or insert large pads of cotton, as suggested by Dr. Braddon, we shall find, if no swelling takes place, that the limb will soon be too loose, and the dressing will rather cover the limb than keep the fractured bones in position. Another objection to the use of the plaster-of-Paris splint in compound



fractures of the leg, was the difficulty, unless the fenestra was exceedingly large, of applying efficient antiseptic dressings. For this reason he had followed the practice adopted by Dr. Bull. Volkmann's posterior splint gave adequate support to the limb, while it left the anterior part, where the wound in the skin usually existed, open for inspection, and allowed the application of antiseptic dressings without much disturbance of the fractured bones. Furthermore, it allowed the application of the bandage over the limb with just such an amount of pressure as was necessary to give proper support. He should, therefore, defer the employment of the plaster-of-Paris splint until all inflammatory swelling had subsided, when he thought it could be used with the best results.

Dr. LITTLE thought it a good plan to make a distinction between the plaster-of-Paris *bandage* and the plaster-of-Paris *splint*. The plaster-of-Paris bandage was a dressing which enveloped the limb entirely, whereas the plaster-of-Paris splint was an apparatus which could be applied to the posterior aspect of the limb, and did not render the limb liable to be injured from obstruction to the circulation, and, at the same time, it rendered the fractured bones immovable, and allowed them to be inspected at pleasure.

*Division of the Tendon of the Flexor Profundus Digitorum.*—Dr. POST narrated a case as follows: A male patient presented himself at his clinic, who, two months before, had wounded the palm of the left hand very nearly in front of the articulation of the first phalanx of the ring finger with the metacarpal bone. After that injury he was able to flex the finger with the other fingers for three days, and then suddenly, after tossing a child, something gave way in the finger, and he lost the power of flexing it entirely. After the lapse of two months the wound had healed entirely, and passive motion could be made, but the patient had no voluntary power over it. It was evident that there was division of both tendons belonging to that finger. Dr. POST made an incision down to the sheath of the tendon, which he divided, and found the distal end of the tendon lying loose in the sheath, entirely separated from the proximal end, and division had taken place just at the point where the tendon of the flexor profundus passes through the slit in the flexor sublimis. He found that the end of the tendon of the flexor profundus was smooth and rounded, and there were little rounded bulbs in the incision of the tendon of the flexor sublimis. He then extended the incision to the extent of about three centimetres, but was not able to find the proximal end of the tendon. He believed that there was incomplete division of the tendon at the time of the injury, and that the separation became complete at the time when the patient felt something give way in the palm of the hand three days afterward. The case was interesting, from the fact that the division was not perfect at the time of the receipt of the injury, and from the fact that there was such a wide separation of the ends of the tendon. A carbolic lotion was applied to the wound, and no unfavorable symptoms had followed the operation.

Dr. SANDS remarked that he had been similarly disappointed in such an operation, and he also had the impression that, as a rule, the separation of divided pieces of tendon was so great as to discourage any attempt to replace the parts after the lapse of any considerable period of time.

The PRESIDENT remarked that he had had the same experience in divisions of the tendons of the fingers.

Dr. POST remarked that when the tendon was within the sheath, it probably receded more than when elsewhere.

Dr. LITTLE remarked that he failed to reach the proximal end of the tendon in a case immediately after the injury.

*Vesical Calculus. Bigelow's Operation.*—Dr. LITTLE presented the fragments of a vesical calculus removed by rapid lithotripsy, with the following history: A man, sixty-three years of age, a patient of Dr. A. H. Smith, had suffered from frequent micturition for six months. Symptoms of stone developed four weeks before he saw the patient. The patient was etherized, and Bigelow's medium-sized lithotrite was introduced. The stone was seized and crushed, and the fragments removed through the evacuating-tube, and the bladder irrigated until no further fragments could be found. The operation lasted only fourteen minutes. Before the operation, the patient was obliged to pass water every hour; after the operation, he could hold his urine for six or eight hours. Not the slightest unpleasant symptoms followed the operation.

*Sequestrum from the Sternum.*—Dr. POST presented a small sequestrum removed from the upper part of the sternum. The patient was a woman, forty-five years of age, who was under his care in the Presbyterian Hospital in August. She had had caries of the sternum for some time. He then removed portions of dead bone, and an opening was made extending into the anterior mediastinal space. The finger could be passed behind the sternum without unpleasant consequences following. She left the hospital, but subsequently came under his observation, and he found, on inspecting the wound, a piece of bone present at the deeper part of the cavity, which he seized with a pair of forceps and extracted, and it was the specimen presented. Since that time the sore had granulated, and the parts looked as if recovery would take place. There was no distinct syphilitic history in the case. The specimen was interesting, from the fact that it was a sequestrum from a spongy bone.

#### PHILADELPHIA ACADEMY OF SURGERY.

*Stated Meeting November 7, 1881.*

S. D. GROSS, M. D., PRESIDENT, IN THE CHAIR.

*Aneurism of the Femoral Artery Cured by Pressure.*—Dr. S. W. GROSS exhibited a case, which he said was really under the treatment of Dr. S. D. GROSS, the President, with the following history:

About a year ago, a colored hod-carrier, aged twenty-seven years, began to suffer from a constant dull, aching pain in the left knee, which he attributed to rheumatism, and which was increased by hard work. Four months prior to his admission into the Jefferson Medical College Hospital, he noticed a beating just above the middle of the thigh, and he found at this point a rather soft pulsating swelling, about the size of a common marble. On admission, there was an aneurism of the superficial femoral artery at the apex of Scarpa's space as large as the fist, and the pain was still present in the knee. There was no history of syphilis, but he fell from a ladder and bruised the corresponding leg a few months previous to the appearance of the tumor.

On the 7th of October, pressure was maintained for three hours upon the common femoral artery by means of a pestle, when it was discontinued on account of the severe pain which it produced. On the 9th of October, the same measure was employed for five hours, but without any benefit. Four days subsequently, two five-pound bags of small shot and a leaden weight of ten pounds were applied to the artery and the circulation completely controlled. The constant movements of the abdominal muscles in respiration, and the restlessness of the patient rendered it necessary to hold the weights in place, and at times to make slight pressure with the hand to overcome the pulsation. At the expiration of an hour and a half, with a view to relieve suffering, one-third of a grain of morphia was thrown under the skin, and the dose was repeated in

two hours. At the end of another thirty minutes, or of four hours from the beginning of the treatment, all pulsation had ceased in the tumor, which had become hard and firm; but the compression was maintained for five hours longer as a matter of precaution. After the contents of the sac had consolidated, there was but little suffering and the patient slept most of the time. At the present date, the tumor is diminished one-fourth.

*Traumatic Aneurism of the Posterior Tibial Artery.*

—Dr. JOHN H. PACKARD read the history of this case. Joseph D., æt. eleven years, a sturdy and well-conditioned boy, was admitted into the Episcopal Hospital October 8, 1881, with the following history: Two weeks previous, he had received a blow on the inner side of the left ankle, from a bit of iron thrown by a playmate. The part "swelled a good deal," but the hurt was not thought much of until the day before his admission, when, in his mother's words, "the ankle burst, and he lost a cupful of blood." Dr. Packard's attention was not called to the case until four days after the admission, when he found a small, pulsating tumor, just back of the inner malleolus. The next day he laid the tumor open, and applied two silk ligatures, one above and the other below. Three days afterwards, the bandage became suddenly saturated with blood, and the boy fainted. A compress was firmly applied, and Dr. Packard was summoned. Enlarging the wound somewhat, he found the upper ligature loose, apparently from the cutting through of some areolar tissue included along with the artery. A second ligature was applied, which held until the 18th, somewhat over forty-eight hours, when bleeding again occurred, in the evening. He then exposed the artery a little higher up, and tied it again, at a point about a quarter of an inch above the one previously chosen. After this there was no further trouble; the wound did well, and on the 23d, ten days after the first ligation, and five days after the third, both ligatures were found lying loose. Healing progressed very rapidly, and the boy is ready for discharge.

*Hæmorrhage from a Wound of the Facial Artery, in which Ligation was Performed.*

—Dr. PACKARD related the following history: B. F. Z., æt. twenty-five years, was brought to the Episcopal Hospital on October 27, blanched and much prostrated by bleeding from a wound in the left cheek, about three-quarters of an inch from the angle of the mouth. Another wound about one and a half inches long, just over the edge of the lower jaw, seemed to be at right angles with the facial artery, and had been closed by means of a large pin and a figure-of-eight suture. The man stated that the wounds had been inflicted with a penknife, about ten days previous, and that two severe hæmorrhages had occurred, one on the eighth day, and the other on the evening before his admission. Ether was at once administered; the clots turned out of the upper wound, enlarged for the purpose, and a silk ligature applied to each end of the divided artery. The edges of the skin were then brought together by means of hare-lip sutures, and a wet dressing applied containing a small amount of carbolic acid. Healing took place rapidly, the ligatures coming away on the seventh day.

*Arterial Hæmorrhage in a Case of Extensive Burn; Ligation of the Brachial Artery.*

—Dr. PACKARD also related the case of Hilda A., æt. eighteen, admitted into the hospital during the service of his colleague, Dr. Hunter, September 7, 1881, having sustained, two weeks previously, severe burns from trying to hasten the kindling of a fire by means of coal-oil. Her body and both arms were terribly injured, and when he came on duty, October 1, the process of granulation was going on slowly, while from the irritability of the stomach there was reason to fear serious involvement of

that organ, or of the duodenum. This, however, was overcome after a few days, and her condition was greatly improved. On the 4th of November, at his daily visit, the resident surgeon, Dr. Robins, informed him that arterial hæmorrhage had occurred from the left arm, and had been controlled by a compress over the brachial artery. On removing this compress (the patient being etherized), several jets of arterial blood spurted from vessels opening on the granulating surface at the inner part of the arm. He immediately, with his fingers, broke away the tissues at the inner side of the biceps so as to expose the brachial artery at the usual point of ligation, when he applied a silk thread. No further bleeding occurred, and the case has progressed since as if no such alarming incident had threatened to interfere with recovery.

Dr. WM. HUNT recollected a number of cases of spontaneous aneurism in negroes, and inquired whether the disease was more frequent in the black than in the white race. He had recently seen a case of traumatic aneurism of the facial artery, to which Dr. Levis had also been called in haste, which had formed in the course of one day. Dr. Levis and he arrived at the house at the same time. The whole mass was dissected out and the bleeding vessels tied.

Dr. J. M. BARTON spoke of once seeing an aneurism which so resembled an abscess in the cervical region that it had nearly been laid open by the gentleman in attendance. He was deterred, however, by noticing the pulsation. The patient died from rupture of the sac, and the autopsy showed evidence of syphilis. The aneurism was of the carotid artery.

*Fracture of the Patella Treated by Hooks.*—Dr. T. G. MORTON exhibited a patient who had been under treatment for fracture of right patella. There was used lead water and laudanum for a week, when Dr. Morton's hinged modification of Malgaigne's hooks were applied. The ordinary hooks would not have obtained accurate apposition, since it was necessary to have the upper pair of hooks widely separated; while the lower ones were close together. No irritation followed. It is possible that bony union is favored by the fact that circulation is not interfered with when the hooks are applied, as when tight bandages are adjusted. The slight irritation due to the insertion of the points may increase the tendency to throwing out of callus for the bond of union. In this case, hooks had remained in position fourteen days.

Dr. PACKARD said he was probably the first surgeon in Philadelphia to apply Malgaigne's hooks.<sup>1</sup> The patient, after having what was thought to be bony union, fell and refractured the bone. There is no danger, as has been supposed by some, of penetrating the joint. He himself now usually employs the method of Sanborn, which consists in loops of adhesive plaster that bring the fragments together by twisting.

Dr. NANCREDE mentioned a case where there was no separation, though crepitus was present. He could just catch his finger-nail between the edges of fragments. Could such a fracture, without laceration of the tendon and fascia, be produced by muscular action?

Dr. HUNT had once treated a patient who had fracture of both bones without any separation. He needed no apparatus, and obtained a good cure.

Dr. WILLARD recently saw a case undoubtedly due to muscular contraction and no separation existed.

The PRESIDENT spoke of the recent successes in wiring old fractures where non-union had occurred; and also referred to the method of passing wire through the ligament of the patella and quadriceps tendon in order to bring parts together without interfering with the joint.

Dr. MORTON called attention to two cases he had

<sup>1</sup> See *American Journal of the Medical Sciences*, April, 1861.

seen; in one the tendon was ruptured above the patella; in the other, below it. No wiring was done. One patient is known to have a good limb for walking, but ascending steps is somewhat difficult.

Dr. WILLARD had had a case where the ligament of the patella was torn close to the tibia, but he had hesitated about using wire.

Dr. PACKARD thought it would be difficult to get a good hold for wiring so close to the bone, and feared trouble might arise from inflammation of the bursa beneath the patellar ligament. He had seen recurring bursitis in this region following injury of the part. Sutures might be better employed in rupture of the quadriceps above the bone.

*Supernumerary Thumbs.*—Dr. NANCREDE exhibited two supernumerary thumbs removed from two children who had double thumbs on the left hand. The additional digits sprung from the head of the metacarpal bones, and were well formed. There was no hereditary predisposition. A child born between these two presented no malformation.

Dr. MORTON recently saw an Italian infant without ears. There were little nodules on each side of the head, and an indistinctly felt depression under the skin, as though a meatus might exist there.

*Urinary Calculi.*—Dr. J. H. BRINTON reported the case of a man whom he had sounded three or four times, about eighteen months ago, and failed to find stone, though the rational symptoms were present. Last spring, however, he found stone, and employed Bigelow's rapid lithotripsy method, by which a large amount of fragmentary matter was removed. He sent the patient home because the weather was hot, but on his return, this fall, removed over fifty calculi by lateral lithotomy. He stated that he believed Dr. Agnew had once removed about two hundred calculi. The patient he had just referred to was able to fish small calculi out of his own bladder by inserting a soft rubber catheter and entangling the stone in its eye.

The PRESIDENT stated that he had removed as many as fifty-four calculi, and that Physick had extracted nearly one thousand at one operation.

*Cheap Water-Bed to Prevent Bed Sores.*—Dr. MORTON mentioned the use at the Pennsylvania Hospital for the Insane of water-beds, made by stretching a piece of gum cloth over a shallow trough. Drs. LEVIs and MEARS also spoke of the cheapness and advantages of this substitute for rubber mattresses filled with water, which they had seen used in other cities.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, November 24, 1881.*

FORDYCE BARKER, M.D., PRESIDENT, IN THE CHAIR.

*The Cell Doctrine and the Bioplasm Doctrine.*—Dr. LOUIS ELSBERG read a paper with this title. He stated that last May, at a meeting of the Laryngological Association, he presented an account of some histological investigations of the cartilages of the larynx, and, as the structure of hyaline cartilage has an important bearing on the subject of his paper, he gave a brief résumé of the views then advanced. As the result of his investigations, Dr. Elsberg is not only able to confirm the views of Heitzman and others, that there are cilia-like, offshoots or prolongations of the substance of the cartilage corpuscles penetrating into the basis substance, but has been able to satisfy himself that these offshoots form an interconnecting reticulum through the basis substance, and that there exist in this network masses of living matter. Hyaline cartilage is, therefore, a mass of living matter, in which blocks of basis substance are imbedded; and the author believes that the communication of these protoplasmic processes with each other and with the

surrounding tissues permit the processes of nutrition to be carried on without the assumption of "juice canals."

*Pyæmic Parotitis.*—Dr. CHARLES A. LEALE read a paper on this subject, and presented two of the patients on whom he had operated, one showing complete loss of the gland from suppuration, the other adhesions at the cheek over the duct of Steno. The latter case subsequently had goitre, which was treated successfully by the internal and external use of iodine.

Dr. Leale differed from the numerous writers who thought that suppuration of the parotid arose from a mechanical occlusion of the *ductus Stenonianus*, as a result of dryness of the mucous membrane of the mouth, and stated that his observations led him to believe that when it occurred in any of the enteric fevers, dysentery, or osteo-mylitis, it always arose from systemic poisoning from an ulceration of such a low grade where constitutional changes were constantly going on, that the glands of the body exerted their influence to eliminate the materies morbi, and therefore metastatic abscesses of the parotid, liver, lungs, brain, etc., were formed. As to the frequency of suppuration of the parotid, he stated that statistics showed it to be a not very uncommon disease, as Hoffman gives 16 cases in about 1600 typhoid fever patients, and subsequently, after the employment of the antipyretic treatment, 1 case occurred in every 550, or 2 in 1100 patients, both of which terminated fatally. In illustration of this disease, when suppuration of the parotid occurs, he gave the history of four cases: one from pelvic cellulitis, one from ulceration of the bowels in typhoid fever, one from general ulceration of the mouth and stomach, and one from suppuration of the kidneys following an acute attack of degenerative nephritis; and, in the same connection, gave the history of two cases of metastatic abscesses of the liver as illustrative of the same provoking cause.

He had never seen a case of pyæmic suppuration of the parotid end in recovery when the pus was not permitted an exit. In three of his cases he had opened by incision and in the other profuse discharge of pus ran from the ears for a period of seven months, the discharge coming through the perforations from the middle ear. In one case only had he seen perforation of the floor of the cartilage of the external auditory canal, and that was one of the patients exhibited to the Academy, who showed the deformity resulting from the complete loss of the gland, resulting in a large cavity under the angle of the jaw.

In explanation of the *modus operandi* of this exit through this firm cartilage, Dr. Leale thought pressure could accomplish this result, as the gland is so firmly bound down by dense fascia. If a small aneurismal tumor can produce perforation of the dense, loosely-attached œsophagus, and cause fatal hæmorrhage into the stomach, a specimen such as he had presented to the New York Pathological Society, why not perforate a cartilage held so firmly in place?

The first case shown was a lady, who at the age of forty-one years had a metastatic abscess of the parotid gland, with discharge of pus through an opening into the cartilage at the floor of the external auditory canal. Complete destruction by suppuration of the entire parotid gland followed, producing a permanent deformity on that side of the neck with a deep hollow beneath and under the angle of the jaw. This lady had an attack of general peritonitis and pelvic cellulitis, and death was nearly caused by suffocation in consequence of pressure on the pharynx. Dr. Leale opened the pharyngeal abscess, and then had through and through drainage; the director inserted just above the angle of the jaw could be pushed through the parotid gland and felt with the finger in the throat.

In this instance the cerebral symptoms were very



profound, complete blindness, deafness, delirium, and slight opisthotonos, showing that the disease had extended to the base of the brain. The temperature ran up on several occasions to 106° F. The convalescence was long, and for months the severe attacks of cephalalgia rendered life miserable. She can now see fairly, and hears nearly as well as ever. Since her attack she has never had a day free from pain, and will probably continue to have pain for several years. The treatment in her case was by iodide of potassium and tonics.

In the second patient the parotid abscess followed a very severe attack of typhoid fever, the parotid was opened under the lobule of the ear, where the duct of Steno was occluded, and when Nature had made an effort to form a spontaneous opening on the cheek.

Our attention is generally drawn to pyæmic parotitis by an earache, which on examination is found to be associated with great pain on pressure under the lobule of the ear, and to extend beneath the angle of the jaw, along the course of the gland. We find hyperæmia, and within twelve hours parenchymatous infiltration, consequent enlargement and œdema; this proceeds gradually until the end of the third or fourth day, when, as a rule, minute abscesses will form in the structure of the gland, either to increase, to coalesce and form one large parotid abscess, or, when the vital forces are nearly exhausted, to remain as numerous multiple abscesses showing a low grade of inflammation.

We may expect metastatic abscesses in osteo-myelitis, and Dr. Leale gave an illustration where, after an amputation of the arm and complete healing of the stump, inflammation within the Haversian canals and in the cancellated tissue of bone occurred, ending in death by cardiac thrombosis. At the necropsy there was found a large abscess in the liver. The centre of the bone above the amputation was also filled with minute abscesses. This patient had presented all the symptoms of acute pyæmia, had recently returned from a malarial district, and his symptoms much resembled the low grade of remittent fever. The end of the stump kept well until within a few hours of death.

A remarkable illustration was brought forward showing the connection of metastatic abscess and osteo-myelitis, and demonstrating, in the first place, the impossibility for the surgeon at times to prevent the occurrence of inflammation of the cancellated structure of bone after certain gunshot injuries, and secondly, that even in primary union of the flesh, when hermetically closing of the wound immediately follows, the sepsis may be lodged on a ball before it entered the body, and be deposited as it passes through the bony structure, there to commence an ineradicable infection sufficient to produce ulcerative softening whereby the entire system becomes infected, a metastatic abscess follows, and death inevitably ensues. Dr. Leale considered such a wound a mortal one, although others might escape with much more serious injuries, yet in this instance the ball caused the injury to the bone, and at the same time deposited a septic poison, impossible for the powers of nature to overcome or the surgeon to reach. Even when the affected bone could be removed by subsequent operation, he had seen the disease reappear in other parts, and in the end cause death.

The two illustrative cases noticed were observed by him while Assistant Surgeon U. S. V. One was Captain C—, who came under his observation April 16, 1865. He had been wounded an inch above the elbow-joint by a ball fracturing the humerus. The limb was amputated in the middle third by the flap method, and had entirely healed. The patient was apparently well, and was told there was no necessity for him remaining in hospital. He was permitted, however, to remain for a rest for a few days, but twenty-two days after his admittance he died of pyæmia. At the necropsy, Dr.

Leale found osteo-myelitis of the stump-bone and a large metastatic abscess in the liver. In the second case, after the discovery of osteo-myelitis, a second amputation did not check the disease, and death occurred. Metastatic abscesses were found at the autopsy.

## NEW INVENTIONS.

### AN APPARATUS FOR WEIGHT AND PULLEY EXTENSION.

Dr. FREDERICK C. SHEPPARD, Surgeon to the Children's Hospital Dispensary, Philadelphia, has devised an ingenious form of apparatus for weight and pulley extension, which admits of application to the ordinary bedstead. The two forms of apparatus shown in the accompanying cuts were designed for use in the treatment of diseases or injuries of the lower extremity requiring confinement to bed and extension by weight and pulley.

That shown in Fig. 1 is intended for cribs or beds with high foot-pieces, and consists of four rods, *a, a, a, a*, joined at the ends, forming a parallelogram, to the upper corners of which are affixed two hooks, *g, g*, by which it is suspended from the upper bar of the foot-piece. A curved rod, *d*, bearing a wheel, *e*, surmounted

FIG. 1.

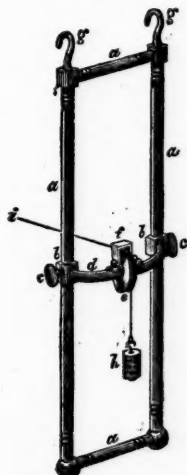
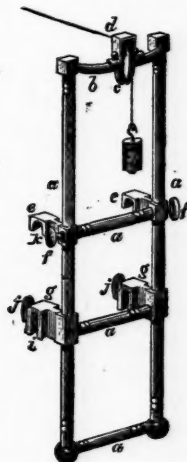


FIG. 2.



by a guard, *f*, slides by means of the attachments, *b, b*, upon the two vertical bars, *a, a*, and can be adjusted to any desired height by the set-screws, *c, c*. A flexible metallic or other cord, attached at one end to the stirrup on the limb of the patient, and at the other to a weight, *h*, passes over the wheel, *e*, and is prevented from slipping off by the guard, *f*.

Fig. 2 represents the apparatus adapted to the ordinary iron hospital bedstead. In it the whole framework can be elevated or depressed. The slots, *k, k*, fix the attachment, *e, e*, to the upper bar of the foot-piece, while the attachment, *g, g*, is firmly clamped to the lower bar by the slots, *i, i*, and the set-screws, *j, j*. The frame being adjusted to the required height is retained in position by the set-screws, *f, f*. The curved rod, *d*, bearing the wheel, *e*, and the guard, *d*, is the same as in Fig. 1, except that instead of sliding, it is permanently attached to the upper portion of the frame.

The material used in the construction is polished brass, which gives an ornamental effect. A number of these apparatus were made by Messrs. Gibson, Shaw & Co., of this city, and have been used with satisfaction in the Children's Hospital for upwards of two years.

## CORRESPONDENCE.

## WAS THE THORACIC DUCT INJURED IN THE CASE OF PRESIDENT GARFIELD?

To the Editor of The Medical News:

SIR: It is a curious feature in some of the criticisms and comments on the President's case, that, in view of the ante-mortem symptoms and the post-mortem examination, it should have been asserted that the "rapid emaciation and mal-nutrition" were due to a wound of the thoracic duct. As distinguished a surgeon as Dr. Wm. Hunt says (*Medical News and Abstract*, November, 1881): "There was the origin of the thoracic duct, with its receptaculum chyli, right in the line of the wound; hence, the rapid emaciation, and the other nutritive disabilities, further explained by disturbance of the sympathetic trunks and ganglia."

The official record of the post-mortem examination (*American Journal of the Medical Sciences*, October, 1881), shows, by statement and diagram, the track of the ball in the spinal column to have been by a small aperture of entrance, one-quarter of an inch distant from the intervertebral foramen of the twelfth dorsal and first lumbar vertebrae, and the centre of the foramen of exit to lie one-half an inch to the left of the median line. With a view to a determination of the exact relations of the parts, I have made, within the past week, two dissections at the University of Pennsylvania, studying with especial care the thoracic duct and receptaculum chyli, and the structures immediately adjacent.

The following is a summary of my observations. The receptaculum lay in one case directly upon the median line, in the other about a line to the right of the median line, closely applied to the body of the second lumbar vertebra, commencing in a pouch at its inferior border, and tapering upwards and to the right, to terminate as the thoracic duct at the lower border of the first lumbar vertebra. The thoracic duct then applied itself closely to the right crus of the diaphragm, and passed up through the aortic opening. The whole of this structure was efficiently protected, anteriorly and to the left by the abdominal aorta, and to the right by the vena cava.

Spicules of bone could not then have reached it from either side, where it was protected by more important organs; and to have been injured posteriorly requires the supposition of more extensive injury to the vertebra than has been stated.

The following summary of symptoms present in the six recorded cases of wound of the thoracic duct, is given by Bradley ("Injuries and Diseases of the Lymphatic System," London, 1879), and is of interest in connection with the study of this historic case.

"Hoffmann's first case was that of a woman wounded through the left side with a knife. Following the wound there was a copious discharge of a spontaneously coagulating fluid, which was observed to be milky during digestion, and clear while the patient was fasting. In his second case, the escape of chyle followed the opening of an abscess of the posterior mediastinum. Monro relates a case where the thoracic duct was wounded by a stab; the lymph escaped externally and also into the pleural cavity, interfering with the heart's action. Guifford's case is of a similar nature. Bonnet gives the history of a Baron Heinden, who was wounded in battle by a bullet, which escaped beneath the left scapula. From this wound there gradually began to flow an excessive quantity of lymph, 'tanta in copia effluxisse, ut non solum linthea quintuplicata, indusium lodicesque imbuerit, sed quoque limbos inundaverit.' The patient lived for several months, dying at last of exhaustion." In Quincke's case, "the

pleural cavity became so full of extravasated lymph that paracentesis had to be performed to prevent suffocation, from which, indeed, the patient eventually died."

It will be seen from the above, that a stillicidium of lymph, generally in great quantities, is the *invariable* attendant of wounds of this nature. The fact that this symptom was wanting, so far as we know, in the President's case, precludes, with even greater certainty than the anatomical considerations, the possibility of any injury to this most important organ.

I am, sir, yours, etc.,

HOWARD ATWOOD KELLY.

PHILADELPHIA, 323 South Seventeenth Street.

## NEWS ITEMS.

NEW YORK.

(From our Special Correspondent.)

PROSECUTIONS UNDER THE MEDICAL ACT.—The report of the Board of Censors of the Medical Society of the County of New York, read at the last annual meeting, gives a detailed account of the work done in the attempt made to enforce the medical law of 1880, which requires the registration of practising physicians in the county, and the prosecution of illegal practitioners. Several quacks were prosecuted, but only one of them was fined, one Abraham E. Cox, who was practising under a diploma improperly obtained from the defunct "Castleton Medical School," in Vermont. The fine imposed was \$100. Another "irregular," the charge against whom was the practising under a diploma illegally obtained from an Eclectic School in this city was, upon his preliminary examination, found unable to speak English. How he passed the examination for his degree he could not tell. This case was presented to the Grand Jury for indictment, but this sapient body declined to consider the case, and refused to examine the Society's witnesses; indeed, one wiseacre informed the President of the County Society, Dr. A. E. M. Purdy, that there was no need for a physician to have a diploma. A third, a man named Dr. Kraft, who registered as a graduate of the Electro-Therapeutic Institute of Philadelphia (whatever that is), escaped on the ground that he cured by electricity and magnetism only, and used no drugs. The Justice held that he was not a medical practitioner, under the statute, and dismissed the case.

Many more cases are to be prosecuted, and one among them promises to be important and interesting. The charge made is perjury, and the penalty is the State prison. The accused, as is clearly shown, obtained his diploma illegally from a defunct medical college of this city, and the Society proposes to test the section of the act which relates to false swearing. Another remarkable diploma was issued from the American University of Philadelphia (Buchanan's diploma mill), on the 4th of July, 1876, palpably illegal. The owner, one "Dr. Grindle," has been arrested, and is held to explain why he has not had his diploma endorsed according to law, coming as it does from a school without the State. After that he will have a chance to tell how he happened to graduate on the National holiday. The Society evidently is in earnest, and is determined to rid New York city of these irregular and dangerous humbugs.

A NEW SOCIETY has been formed, called the *Materia Medica Society*, which discusses the nature and action of drugs. If anything can be predicated from the few meetings already held, the society promises to be a useful one, as the papers presented have been of a high standard, evincing a good knowledge of the subjects discussed. A novel feature is the one relating to the admission of new members. Each candidate must pre-

sent a written thesis upon some subject in materia medica as a proof of his qualification for membership, and upon that proof he is admitted or rejected. A similar rule has been in operation in the New York Dermatological Society for some time past.

## BOSTON.

(From our Special Correspondent.)

THE SUFFOLK DISTRICT MEDICAL SOCIETY, which includes all members of the Massachusetts Medical Society residing in Boston, last winter dispensed with half of its monthly meetings and formed from among its members sections devoted to special branches of medicine. The sections devoted to general medicine and to surgery have held several meetings, with good attendance, and far more animated discussions than under the old plan. The section of Obstetrics and Diseases of Women will soon be formed; others will follow if the scheme proves satisfactory.

A MEDICAL MAYOR.—Dr. Samuel A. Green, city physician of Boston, has received the nomination for mayor of both the Republican and Citizens' Conventions. This conjoint action will, it is believed, ensure his election despite the fact that the Democratic candidate generally carries the election by a small majority.

HARVARD MEDICAL SCHOOL.—The new building for the Harvard Medical School has reached the third story. The work will probably be stopped for the winter on December 1st. The fund raised for the erection of the building amounts to \$300,000.

The total number of students enrolled this winter is 243, divided as follows: Graduate's Course, 9; Fourth Class Course, 10 (optional); Third Class Course, 80; Second Class Course, 63; First Class Course, 81.

Prof. Calvin Ellis, Dean of the Faculty, who has been incapacitated by ill health from lecturing or practising for nearly a year, is reported to be convalescing.

## BALTIMORE.

(From our Special Correspondent.)

THE BACILLUS LEPRÆ.—The recent descriptions of Neisser, Eklund, and others, of the bacillus lepræ, first observed by Hansen, have awakened widespread interest in the pathology of leprosy. Dr. I. Bermann, of this city, has been able to detect the presence of the bacillus in leprous tissue, and to confirm the discoveries of the above-mentioned authors. Sections exhibiting the bacillus were shown at the recent meeting of the American Dermatological Association at Newport. Since then, Dr. Bermann has improved his methods of preparation and investigation, and is now able to demonstrate the bacillus to perfection. His results were shown at a recent meeting of the Baltimore Clinical Society. The directions given by Neisser for detecting the little organisms enable one to recognize them, but not with satisfaction. Weigert's methods for investigating bacteria answer the purpose perfectly. The affinity of the bacillus lepræ for the aniline violet staining fluid is remarkable. By immersing the stained sections in oil of cloves for forty-eight hours, the violet color is removed almost completely from the tissues, leaving the bacilli stained dark purple and presenting sharp outlines. It remains very difficult to see them, however, even after this preparation, and objectives of high power (with small angle) must be employed. By using, as a condenser, an objective of about one-quarter inch, for illumination, they come out with splendid definition. The bacilli are mostly to be found in the protoplasm of the cells, but may be seen elsewhere. Sections thus prepared and examined will satisfy the most incredulous. Dr. Bermann has been the first in this country, we believe, to detect the bacillus, and will shortly publish his observations in full.

## CHARLESTON.

(From our Special Correspondent.)

SCARLET FEVER, after a reign of several months, has wholly departed from this city. Diseases like this are more infectious than contagious. They do not come, stay, or go away by accident. When the scarlet fever disappeared, it was not that it had no more fit subjects to infect; there were constantly fresh arrivals of new children for it to seize upon. Diphtheria has been here much longer, and has not yet left us, as an occasional case testifies. There must be *plus* the infecting poison, without which scarlet fever, diphtheria, small-pox, or measles cannot exist, some climatic, telluric or barometrical condition which is equally essential to their life. Small-pox once remained in this city for more than two years, then it disappeared. Once we had no diphtheria here at all, till it came from California through Kentucky, Virginia and North Carolina, and was seen first in the upper counties before it travelled to Charleston. We had *membranous croup* before diphtheria. Scarcely a case (we know of but one) of the former has been seen since the war.

There is a parish (St. John's, Berkley), only forty miles from this city, to which, so far as we can learn, a case of diphtheria was never yet conveyed, if we may except an occasional case, perhaps, on its lower border on the Cooper River, which is in direct water communication with this city; and yet we have discovered that in this parish, fifteen by thirty miles in dimension, has occurred a few years since some unique and isolated examples of hemorrhagic malarial fever—a disease we have never seen or heard of elsewhere in this State.

No one has yet discovered what is that precise atmospheric condition which is necessary to the life and persistence of these infectious diseases, and which being changed or exhausted, the diseases die out. We believe, with respect to yellow fever and its mild congener *dengue*, that *ice* kills them virtually, though specimens of either disease have occasionally been with us as late as December.

Typhoid fever has certainly been a little more prevalent here than usual during the past three months, affecting persons living in fine residences near the Battery, and surrounded by comforts. This is an additional example of some atmospheric peculiarity favoring its spread, though the condition of the soil, moisture, defective drainage, infected milk, etc., may have much more to do with it than with the other diseases.

In a number of cases, five in all, we find a simple treatment, similar to that advised by Sir William Jenner, quite sufficient, namely, sponging with cold water, a fever mixture, and quinia, two grains twice a day. It is high temperature that kills, and this must be restrained, by above measures, below 103°.

## NEW ORLEANS.

(From our Special Correspondent.)

PUBLIC HEALTH.—With the exception of malarial and diarrhoeal affections, the city has been very healthy. The death-rate for last week was twenty-six per thousand per annum. Assuming the population to be 220,000, with 60,000 colored, the death-rate of the latter was forty per thousand per annum.

Nine cases of small-pox have been brought to the Charity Hospital for admission. One was admitted during the stage of invasion, but was sent to the small-pox hospital as soon as the eruption could be diagnosed. Nevertheless, the disease has developed itself in one of the hospital employees.

Last week, ten deaths were ascribed to malarial fever and five to dysentery. Severe malarial attacks seldom occur to persons living in populous parts of the town. It is, however, very different in the suburbs; especially,



as the situation is more remote from the river or nearer the swamps. The malarial fevers brought into the hospitals are more fatal than usual. As common in these affections, the complications occasion the increased mortality. Diarrhoea, dysentery, and pneumonia are the intercurrent diseases which bring the greatest danger to the patients. The wards of Charity Hospital are kept very nearly filled.

UNIVERSITY OF LOUISIANA.—The lectures in the medical department began November 14. The class last year numbered 220. This year it will exceed that number. It is a sad, but noteworthy fact, that since 1867, seven deaths have occurred in the medical faculty of this school.

CENTRAL NEW YORK MEDICAL ASSOCIATION.—The fourteenth semi-annual meeting of the Central New York Medical Association was held in Syracuse, November 15. The first paper read was on *Mobility of the Stomach*, by Dr. W. S. Ely, of Rochester. The doctor spoke of the difficulties encountered in diagnosing diseases of the viscera below the diaphragm, and cited three cases, which he conscientiously referred to as "errors." In the first case he was called in consultation to confirm a diagnosis, yet was honest in his conviction, from the appearance and symptoms, and from the existence of the characteristic tumor, that the case was one of cancer of the stomach. A post-mortem examination subsequently proved the error. The stomach was very much depressed; the pylorus was two inches to the left of the umbilicus, hardened and inflamed. The swelling was produced by the gall-bladder, which was filled with gall-stones. The other two cases were equally interesting, and prove the expediency, in all cases, of making a careful examination.

After discussion of the above paper, Dr. Creveling, of Auburn, read an article on *Laryngeal Phthisis*, in which he maintained that laryngeal phthisis may be present without consumption existing elsewhere.

Dr. Ely then exhibited a hypodermic syringe revised and modified by himself, and manufactured by Tiemann, of New York. The instrument is commendable because of its compactness. The needle is inclosed in the piston, and the barrel has a close-fitting cap, which prevents the possible entrance of air or dust. The syringe is about as large as a lead-pencil.

At the afternoon session, Dr. Van De Warker, of Syracuse, read a well-written article on *The Forcible Elongation of Pelvic Adhesions*.

Dr. M. H. Brown presented a case of *symblepharon*, which was produced by the formation of cicatricial bands (scars), the result of a burn by a piece of red-hot iron. The case was peculiarly interesting from the exceptionally good result obtained from the comparatively novel operation. The first operation was performed in September. It was unsuccessful, the bands, after removal, again forming. The second operation was performed last October. It consisted essentially in removing the cicatrices from the eyeball, and so loosening the lid, cutting away the adjoining conjunctiva, and substituting a piece equal in size to that destroyed, from the conjunctiva of a rabbit. This was stitched into the wound, thereby keeping the surfaces separated, and a complete and radical cure was the result. The piece of rabbit's conjunctiva is now coursed with blood-vessels, and is as sensitive as the rest of the eye.

After a discussion on dislocation of the hip, the Society adjourned to meet in Rochester, May 17, 1882.

KENTUCKY STATE MEDICAL SOCIETY PRIZE.—The Committee on Prize Essays has offered fifty dollars for the best essay embodying the results of original experimental research or original clinical observation on the nature, mode of propagation, pathology, and treat-

ment of scarlatina. Only members of the Society are allowed to compete. Essays must be sent in before March 15, 1882, to D. S. Reynolds, M. D., Chairman.

HONORS TO AMERICAN PHYSICIANS.—At the meeting of the Clinical Society of London, on October 14, Dr. H. J. Bigelow, of Boston, and Dr. J. S. Billings, of Washington, together with Sir James Paget, Prof. Es-march, Prof. Volkmann, Prof. Verneuil, M. Ollier, M. Pasteur, and Drs. Pantaleoni and Mazzoni were nominated by the Council as Honorary Members of the Society, in commemoration of the meeting at London of the International Medical Congress of 1881.

SIR ERASMUS WILSON.—The Queen has conferred the order of Knighthood on Sir Erasmus Wilson, President of the Royal College of Surgeons of England, "in consideration of his munificent gifts for the support of hospitals, and the encouragement of medical study." Among his gifts to hospitals has been the erection, at his sole cost, of a wing of the Margate Infirmary, involving an outlay of \$150,000. He also defrayed the expense, \$50,000, of bringing Cleopatra's needle to England and setting it up on the Thames embankment, and he founded the chair of Dermatology in the Royal College of Surgeons, and endowed it with \$25,000. Sir Erasmus Wilson is seventy-two years of age, and his fame as a dermatologist is world-wide.

VIRCHOW'S JUBILEE.—The greatest of the honors conferred upon Virchow, in the celebration at Berlin in commemoration of his sixtieth birthday and of the twenty-fifth year of his professorship, is the foundation of the Virchow Institute for Promoting Anthropological Studies, to be under Prof. Virchow's own direction. Seventy thousand marks were subscribed towards this project in the various European countries. The presentation was made by Prof. Bastian at a brilliant fête given at the Roth House, in Berlin, on November 22. In commemoration of the same occasion, Virchow was tendered a banquet by his former assistants, now some of the most distinguished pathologists in Germany, and a marble bust was erected in his honor in the hall of the Pathological Institute.

METHOD OF APPLYING NITRIC ACID AS A CAUSTIC.—To prevent the spreading of nitric acid when used as a caustic, Dr. Speirs recommends, in the *Practitioner*, that the part to be cauterized, as, for example, a nœvus, should first be surrounded by a short glass tube or neck of a bottle, of the size of the slough desired, and then the nitric acid applied with a pipette. Before removing the tube, the excess of acid is to be mopped up with cotton-wool on a probe.

## NOTES AND QUERIES.

### DOUBLE FEMORAL ARTERY.

MR. HOWARD A. KELLY has observed three cases of double femoral artery, in which the femoral divided into two trunks below the origin of the profunda to reunite above the Hunterian canal. One case like that of Mr. Bell (*Anderson's Quarterly Journal*, 1826), was the subject of ligation, and to this peculiarity the man owed his loss of life. Another case was in the leg of a white man, dissected by Dr. Griffith, at the University of Pennsylvania. The third occurred in the leg of a white woman, in Jefferson College dissecting-rooms. These cases Mr. Kelly will report in detail in the January issue of the *American Journal of the Medical Sciences*.

### AUTHOR OF LISTERISM.

At the meeting of the New York Academy of Medicine on October 20, books and papers were presented which had been received from Dr. Déclat, who in them claimed priority in the advocacy of the so-called antiseptic method.

### SUPRA-PUBIC LITHOTOMY.

DR. A. GROVES reports two successful cases of supra-pubic lithotomy in the *Canadian Journal of Medical Science*, for Nov., 1881.